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Decoding the Cultural Landscape:

A Structural Analysis of the University of Alberta

by

© OLENKA S. E. BILASH

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Decoding the Cultural Landscape: A Structural Analysis of the University of Alberta submitted by Olenka S. E. Bilash in partial fulfilment of the requirements for the degree of Master of Arts in Geography.

Supervisor

David B. Johnson.

P. L. Knight

Date 12 April 1984

ABSTRACT

This thesis examines a particular cultural landscape, the University of Alberta, what it meant to different people in its early years of development, and how what it meant to different people was embodied in its physical plant. It also presents a procedure for recovering the meaning embodied in a group of buildings, such as those that formed the University. This procedure is intended to be fundamentally a general one; it, or a variation of it, could be applied in other cases. Based on two models, langue and parole and the semiotic triangle, which were originally proposed in linguistics to explain the nature of the communication event, the procedure combines a number of concepts that have been put forth in cultural geography, but which have been little used.

Applying the proposed methodology, the body of the thesis identifies what is meant by a university as an institution and compares the criteria of this definition to what was said about the University of Alberta by its creators. As such it explores the values and beliefs of those who created the University of Alberta. It also identifies what a university was expected to look like as an architectural concept at that time and compares the criteria of this concept to statements about the University of Alberta. Verbal information amassed in the University of Alberta Archives is presented as evidence of the creators' explicit beliefs. The material objects they are responsible for creating are then considered expressions of their functional beliefs. The thesis examines the consistency of explicit and functional beliefs with respect to the University of Alberta and proposes possible explanations for inconsistencies.

An examination of the plans, buildings, and spatial organization of the University for evidence of the criteria of a university as both an institution and architectural concept revealed that brick, stone, the grid system, central location, height, and architectural style can be viewed as metaphors in the cultural landscape. As such, they are shown to embody one or more of the following qualities: permanence, order, power, regularity, harmony, international cooperation, the monumental, and the sacred.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND

Recently, in what Pattison (1964) calls the man-land tradition in geography, there has been growing interest in the influence of mental phenomena on the creation of cultural landscapes. This thesis contributes to this tradition by examining a particular cultural landscape, the University of Alberta. The objectives of the analysis are to examine what the University of Alberta, in its early years of development, meant to different people, how what it meant to different people was embodied in its physical plant, and to present a procedure for recovering the meaning embodied in a group of buildings, such as those that formed the University. This procedure is intended to be fundamentally a general one; it, or a variation of it, could be applied in other cases. Based on two models which were originally proposed in linguistics to explain the nature of the communication event - the langue and parole model and the semiotic triangle, the procedure logically combines a number of concepts which have been put forth in cultural geography, but which have had little practical following. It is hypothesized that concepts such as binary opposition (Tuan, 1971), mental phenomena (Olsson, 1974), the non-material dimension of reality (Sitwell and Latham, 1979), explicit and functional beliefs (Sitwell and Latham, 1979), deeper levels of reality (Tuan, 1971), metaphors of the cultural landscape (Sitwell, 1981), reading the cultural landscape (Jackson, 1952), and meaning of place (Relph, 1976) have been rarely applied to analyses of the cultural landscape because there has been no method available to examine the cultural landscape for evidence of their existence. The fact that all of these geographers were discontented with the methodological options at their disposal and that they were interested in uncovering the essence of man's relationship to the landscape he creates lend support to the postulate that, in a general way, these concepts have the same meaning. The linguistic models presented will attempt to show this similarity.

Though it was possible to reduce the content of this thesis to a few sentences, the key geographical concepts presented and the linguistics concepts on which they are based are all complex. As such, they call for individual explication, as does the method of comparison that will be used. Because the explication draws on earlier research, it is appropriate to consider those particular studies that have inspired the work presented in this thesis.

REVIEW OF PREVIOUS RESEARCH

Models

The examination and modification of models are basic to the method to be used in this thesis. For almost two decades geographers have recognized the impact that models have had on the development of theory in all of the social sciences. After reviewing literature about models spanning two decades, Chorley and Haggett (1969) defined a model as follows:

> . . . a model can be a theory or a law or an hypothesis or a structured idea. It can be a synthesis of data. Most important from a geographical viewpoint, it can also include reasoning about the real world by means of translations in space (to give spatial models) or in time (to give historical models) . . . A model is thus a simplified structuring of reality which presents supposedly significant features or relationships in a generalized form (Chorley and Haggett, 1969, pp.21-22).

In its development of theories and models, the field of linguistics has also proved a fruitful one. Some of the discoveries which provided the foundation for modern linguistic theory are of particular relevance to this thesis.

Langue and Parole

The individual who is credited with being the founder of modern linguistics is Ferdinand de Saussure. Saussure published little in his lifetime and the only record of his teachings is the Course in General Linguistics (1915), a book posthumously written from classnotes and published by his students. In this book Saussure differentiates two major aspects of human language - langue and parole[1], and explains their relationship to meaningful communication.

> In separating language (langue) from speaking (parole) we are at the same time separating: (1) what is social from what is individual; and (2) what is essential from what is accessory and more or less accidental.
>
> Language is not a function of the speaker; it is a product that is passively assimilated by the individual. It never requires premeditation, and reflection enters in only for the purpose of classification . . .
>
> Speaking, on the contrary, is an individual act. It is willful and intellectual (Saussure, 1915, p.14).

In other words, langue is a social institution and a system of values which exists in its entirety only in the speaking mass or society. The individual cannot modify or create it for even if he/she coins a word;

---

[1] Although it is customary to underline words from foreign languages, langue and parole will not be underlined in the balance of this thesis. It is felt to be better to avoid distracting the eye at frequent intervals than to use the English counterparts of these two terms (i.e. language and speech) because of their ambiguity.

it is always society's decision whether or not the word enters the language. By learning and accepting langue every individual acquires the common base necessary to make individual communication - parole - meaningful.

The Semiotic Triangle

Saussure is also known as the father of semiology, the study of sign or symbol systems, and of structuralism. To Saussure,

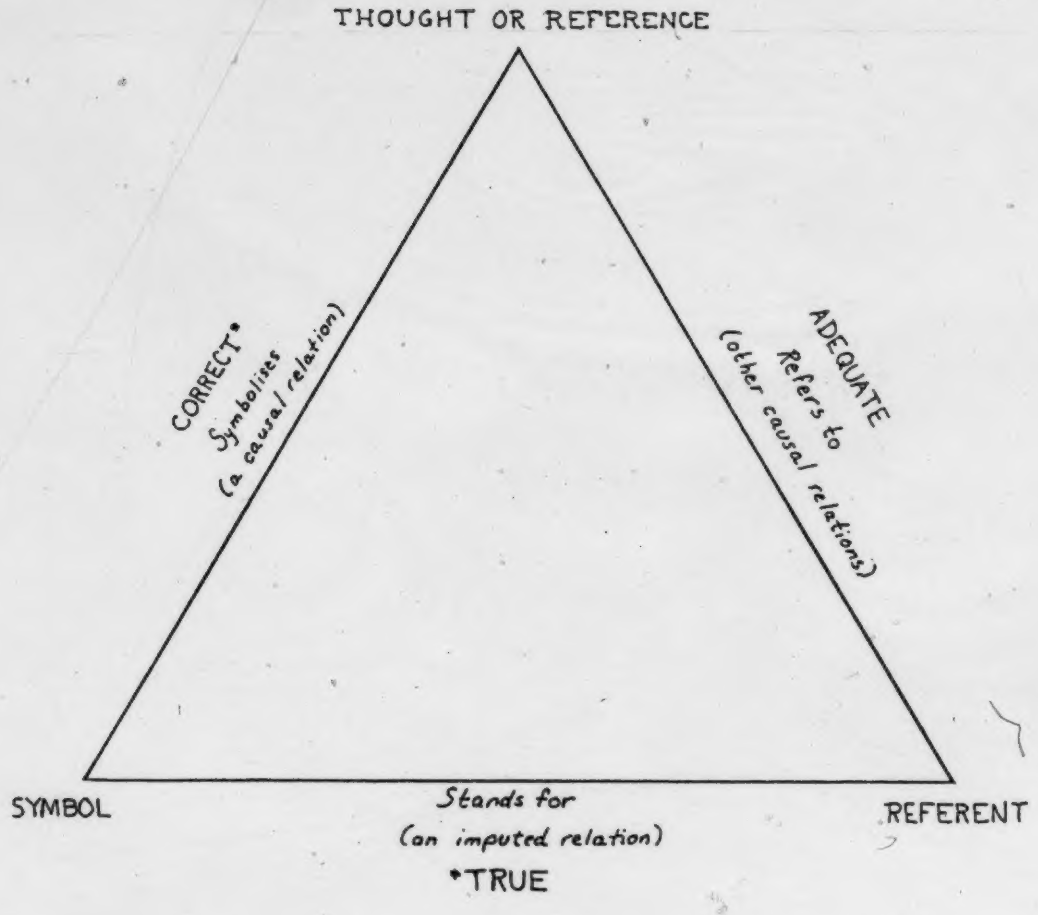
> Language is a system of signs that express ideas, and is therefore comparable to a system of writing, the alphabet of deaf-mutes, symbolic rites, polite formulas, military signals, etc. But it is the most important of all these systems (p.16).

Ogden and Richards (1930) elaborated on Saussure's idea of language being a semiological system and advanced a model, which has since been called the semiotic triangle (Figure I). In this triangle they describe the meaning of language by describing the relationship between thought, symbol, and referent:

> This may be simply illustrated by a diagram, in which the three factors involved whenever any statement is made, or understood, are placed at the corners of the triangle, the relations which hold between them being represented by the sides. The point just made can be restated by saying that in this respect the base of the triangle is quite different in composition from either of the other sides.
>
> Between a thought and a symbol causal relations holds. When we speak, the symbolism we employ is caused partly by social and psychological factors--the purpose for which we are making the reference, the proposed effect of our symbols on other persons, and our own attitude. When we hear what is said, the symbols both cause us to perform an act of reference and to assume an attitude which will, according to circumstances, be more or less similar to the act and the attitude of the speaker.
>
> Between the Thought and the Referent there is also a relation; more or less direct (as when we think about or attend to a coloured surface we see), or indirect (as when we 'think of' or 'refer to' Napoleon), in which case there may be a very long chain of sign-situations intervening between the act and its referent: word--historian--contemporary record--eye-witness--referent (Napoleon).

FIGURE I

SEMIOTIC TRIANGLE: ORIGINAL IDEA


THOUGHT OR REFERENCE
CORRECT*
Symbolises
(a causal relation)
ADEQUATE
Refers to
(other causal relations)
SYMBOL
REFERENT
Stands for
(an imputed relation)
*TRUE

(Ogden and Richards, 1930, p. 10)

> Between the symbol and the referent there is no relevant relation other than the indirect one, which consists in its being used by someone to stand for a referent. Symbol and Referent, that is to say, are not connected directly . . . (Ogden and Richards; 1930, pp.10-11).

In the language of those who have gone on to study semiological systems, the thought, referent, and symbol are said to be transformations of one another.

Glassie (1973) notes that language is but one type of transformation that can be explained by the semiotic triangle. In fact, everything that is in the mind of man can be transformed into human creation - art, myth, cooking, design, or the human landscape. In the case of landscape, Rapoport was thinking in this vein when he wrote:

> Buildings and settlements are the visible expressions of the relative importance attached to different aspects of life and varying ways of perceiving reality (1969, p.47).

Oppositions

While Saussure believed that the phonological make-up of words was purely arbitrary, another linguist, Roman Jakobson, believed otherwise. Jakobson is noted for three major contributions to linguistic theory, all the result of his study Child Language, Aphasia, and Phonological Universals (1941). First, he concluded that the order of phonological acquisition in children is universal among languages, and that the order of phonological deterioration among aphasics occurs precisely in the reverse order of acquisition.

Second, his analysis of phonemes and their order of acquisition revealed patterns to Jakobson which resulted in a new phonological classification system. In this system he identified sounds that were related by being "in opposition" to one another. His oppositions included categories such as front/back, closed/open, and wide/narrow, all of which could be considered opposite ends of a continuum, and categories such as rounded/unrounded and labial/dental, which are departures from the standard understanding of opposites. In both types of categorization one thing is differentiated from another by simply being something else.

Jakobson's third contribution to linguistic theory is perhaps the most controversial. Unlike Saussure, Jakobson suggests that the phonological make-up is not arbitrary, i.e. that individual sounds have value in and of themselves. By interviewing a number of people from different age, language, and occupation backgrounds, he pointed out parallels between the systems of sound and colour (1941, pp.82-84). He noted that his respondents consistently associated certain colours with certain sounds. For example, dental phonemes were related to dark colours while palatals were associated with light colours. Overall, oppositions in colour were consistent with his sound classification system. This finding was the first to lend support to the notion that sounds have meaning in and of themselves.

Oppositions in Social Relations and Spatial Organization

Levi-Strauss (1958) took Jakobson's idea about words being composed of phonemes that come into existence by being "in opposition" to one another, and applied it to the organization of elements in human culture (relationships of kin, relationships of social groups within a village society). In his essay "Do Dual Organizations exist?" (1958, pp.130-163) he showed that social relations have counterparts in the cultural landscape. Quoting extensively from Malinowski's original collection of data, the following passage identifies five pairs of binary oppositions that describe the physical appearance of a Trobriand village in Melanesia and that have counterparts in the social structure:

> The village of Omarakana is arranged in two concentric rings. At the center lies the plaza, the "scene of public and festive life". Around this are the yam storehouses, sacred in character and the object of many taboos. A circular street runs around the storehouses, with the huts of the married couples built at the outer edge. This Malinowski called the "profane" part of the village. But not only are there oppositions between central and peripheral and between sacred and profane. There are other aspects too. In the storehouses of the inner ring raw food is stored and cooking is not allowed: "The main distinction between the two rings is the taboo on cooking" because " . . . cooking . . . is believed to be inimical to the stored yam." Food can be cooked and consumed only in or around the family dwellings of the outer ring. The yam-houses are more elaborately constructed and decorated than the dwellings. Only bachelors may live in the inner ring, while married couples must live on the periphery--which recalls one point cursorily noted by Radin of the Winnebago: "It was customary for a young couple to set up their home at some distance from their village." This is all the more curious because in Omarakana only the chief may establish his residence in the inner ring, and because the Winnebago informants who described concentric structure spoke of a village reduced, for all intents and purposes, to the huts of the principal chiefs. Where, then, did the others live? And, finally, the two concentric rings in Omarakana are opposed with respect to sex: "Without over-labouring the point, the central place might be called the male portion of the village and the street that of the women." Malinowski emphasized several times that the yam-houses and the bachelors' quarters could both be considered as a part, or an extension of, the sacred plaza, with the family huts having a similar relationship to the circular street.
>
> In the Trobriands we see, therefore, a complex system of oppositions between sacred and profane, raw and cooked, celibacy and marriage, male and female, central and peripheral (Levi-Strauss, 1958, pp.136-137).

Neurognostic Models

After reviewing collections of cross-cultural data compiled by Levi-Strauss, and examining assertions made by Levi-Strauss, Carl Jung, Piaget, Slobin, and Chomsky to the effect that there are deep structural similarities between a variety of human cultures, Laughlin and d'Aquili

(1974) put forth the concept of a neurognostic model. Their concept and explanation of neurognostic model are of relevance to this thesis in three ways. First, they confirm that we think in terms of models and alter models in terms of feedback. Second, the fact that the neurognosis "is often capable of being linked to (or "described by") some verbal utterance" (1974, p.101) provides a fuller understanding of what the signifieds (of the semiotic triangle) are and how they work. And third, Laughlin and d'Aquili conclude that the binary opposition is one of the finite neurognostic structures which appears to be genetically controlled.

Binary Oppositions

Laughlin and d'Aquili describe the binary opposition as "the primitive, but universal, tendency to order reality into pairs that are usually subjectively experienced as opposites" (Laughlin and d'Aquili, 1974, p.115). This finding provides a scientific foundation for the opinions of Levi-Strauss on the way in which ideas/values/beliefs are set in pairs. Laughlin and d'Aquili indicate a number of studies which suggest that one part of the brain, the inferior parietal lobule, houses "the basic ability to organize external objects according to spatial antinomies (below-above, before-after, in-out, up-down, etc.)" (Laughlin and d'Aquili, 1974, p.54).

Binary oppositions have also been identified by geographers. Tuan states that "it is the essence of binaries that though the two elements of each pair are opposed they are nonetheless necessary to each other for meaning" (1971, p.188). He considers the following binary oppositions to be "fundamental" to the understanding of man's relationship to the landscape he creates: alive-dead, male-female, light-darkness, self-society, city-countryside, and garden-wilderness (1971, p.188).

Other scholars have also inferred that the brain must exercise a type of control over how people perceive and interact with reality. Leach writes: "Evidently, at some deeply abstract level, all our different senses are coded in the same way" (1974, p.11) and "(t)he human brain is so constructed that it is predisposed to develop categories of a particular kind in a particular way" (1976, p.37). Susan Langer adds that "the understanding of one thing through another seems to be a deeply intuitive process in the brain" (1957, p.8).

The Non-Material Dimension of Reality

The tendency to alter models on the basis of feedback led Sitwell and Latham (1979) to call man a "problem-solver". They identified three classes of problems: those set by the physical environment, by other people, and by the non-material dimension of reality. Sitwell claims that the need to create a signifier for the non-material dimension of reality is analogous to Newton's need to create a signifier for a force called gravity. In Sitwell's words,

> Newton used the signifier "gravity" to talk about a force that, he postulated, acted on all (physical) bodies. He did not know what this force was, but he knew that it was unlike every other force of which he had knowledge, because it, unlike them, did not require a material agent to bring about its effects--instead, it could act at a distance.
>
> In his own day Newton was severely criticized by practical, hard-headed people who were very unhappy at having some "mysterious", seemingly occult "force" made an agent in explaining the operation of the physical universe. Newton acknowledged the validity of the criticism, but regarded it as the price he had to pay for the results that he obtained from the case of the concept--which was nothing less than the unification of the universe. If he was allowed to postulate a force capable of acting

> at a distance, then he could show that all movement in the universe took place in ways that could be predicted on the basis of a very simple model. The force (gravity) a body exerted was proportioned to its mass (i.e. to its basic physical "presence"--to the number of electrons, protons, neutrons, etc. of which it was composed); and the effect of the force diminished in a simple way as the distance from the body that was the source of the force increased.
>
> In the end Newton prevailed, but it was not until Einstein came along that gravity ceased to be a signifier signifying a denotatum about whose existence in itself nothing was known. That is our situation with respect to denotata such as faith. We hear the sign (a sign is a signified and/or signifier and is used when it does not matter which of the two we are referring to): to what does it refer? We do not know. Or rather, we know that it, along with a number of other signs, refers to denotata whose "dimensions" do not yield consistent results when they are measured. Our knowledge is negative. We know that either: they do not exist, or: if they exist, they cannot, at present, be brought within the scope of our accepted scientific procedures of analysis (personal communication, 1983).

Sitwell and Latham went on to suggest that societies could be classified on the basis of the relative amount of "effort" they devoted to the solution of each class of problem. They argued that the abstract concept of effort could be operationalized (i.e. translated into measurable terms) by assessing the cultural landscapes created by people of different cultures. The elements of the landscape would be classified as being the byproduct of a solution to one or other of the three classes of problem; e.g. a quarry is created when stone is dug to provide shelter (intended as a solution to one of the first class of problem); a defensive wall around a town embodies a particular solution to a particular problem of the second class (hostile neighbours); a temple is built when people believe that it will help them deal with "their" gods. They used three case studies to support their contention that each of three types of problem had been perceived as paramount by at least one society.

Sitwell and Latham introduce the concept of the non-material dimension of reality for the same reason that Gunnar Olsson (1974) introduced the concept of mental phenomena, i.e. beliefs, values, attitudes, emotions, ideas, etc. Olsson argued that the world of mental phenomena had been largely ignored in contemporary geographical analysis because geographers had adopted the methods of empirical science. Attitudes, beliefs, values, etc. cannot "be counted . . .caught . . . or caught up in (the) truth-functional reasoning net" (1974, p.57). He also points out that empirical science has no means of accounting for the qualitative change of phenomena. This would entail examining an object which evolves from one thing into another, acquiring a new label in its evolved state, for example, the evolution of a fetus into a new born; and of the evolution of one thing into another, but maintaining the same label, for example, the City of Edmonton. Olsson argues that geographical analysis "should be interested in the evolving relations of things" (1974, p.56).

Explicit and Functional Beliefs

Sitwell and Latham (1979) also differentiate between two classes of beliefs or values. Some are explicit; others functional. An explicit belief is expressed by what people say, while a functional belief is expressed by what they do, that is, by their behaviour. In their article, the social scientists cited are criticized for making the assumption that the only type of belief that exists is the explicit one. While it is true that sociologists (and also psychologists) had studied behaviour as the consequence of belief, they, or at least those that called themselves behaviourists, saw behaviour as the simple, direct response of the organism to stimulus, possibly after the mediation of conditioning (the only kind of learning they recognized).

Because the link between stimulus and response was direct, they had no need to introduce the mediating element or structure of belief between the two.

Metaphor

Richards (1965) notes that the understanding of one thing through another is called metaphor:

> (Metaphor) gives us two ideas for one, where we compound different uses of the word into one, and speak of something as though it were another . . . Those processes in which we perceive or think of or feel about one thing in terms of another (are also metaphoric) (Richards, 1965, p.116).

Richards is convinced that the more abstract the thought, the greater the dependence on metaphor. He also implies that that dependence may be unconscious (1965, p.92).

Sitwell (1981) moved from the position he took with Latham of trying to identify priorities of value of a people by studying the degree of alteration that had taken place in a natural landscape as a series of cultural elements were imposed on it by the people in question, to the possibility of refining the analysis by interpreting elements in the cultural landscape as being "concrete" signifiers standing in place of verbal signifiers. More specifically, he hoped by this means to identify certain signifieds that linguists class as metaphors. He identified three metaphors in language which may be paralleled by metaphors in the cultural landscape: height, durability, and central location. He noted that these are all metaphors of human worth.

> To be 'high', climbing the social ladder, at the peak of her career, to walk tall, on top of the world, room at the top, rise to fame, summit meeting: these catch phrases have two things in common. First, they all refer to conditions, circumstances,

> behaviour, or actions in which the people involved have a sense of achievement. We expect them to be pleased with the situation in which they find themselves, or with the status that is implied by their being in that situation. Second, metaphors of height occur in each of them (Sitwell, 1981, p.173).

Sitwell goes on to state that high values are attached to tall buildings or other edifices in the human landscape. He also points out that items that are durable have worth - "diamonds are forever". His argument concludes by indicating that buildings can be made durable (or endowed with worth or value) by their building materials. Brick and stone display permanence while wood decays. He also points out that elements of the landscape that are centrally located are of central importance in the value system of the society which created that landscape.

The idea that elements of the landscape have meaning or value to their creators, or that the cultural landscape was created to reflect meaning, value, or beliefs has been studied by others as well. J. B. Jackson, Relph, and Tuan have all contributed to this end.

For twenty-five years, beginning in 1951, J. B. Jackson edited and regularly contributed to the journal Landscape. Repeatedly, he attempted to show that "the cultural history of America is just as legible in the appearance of our landscape (for those who know how to read it) as it is in the monuments and institutions of our cities" (Jackson, 1952, p.5). Among many representative articles is one about the landscape of the American Southwest. Jackson shows how that landscape was transformed into the image of life held by its creators. He states that the landscape of the American Southwest is a product of the beliefs and values of the native Indian population and of the early Spanish settlers of the region, concluding that "it is as if two different sets of laws, two distinct psychologies, were at work"

(Jackson, 1951, 1(1B), p.18). In another article, Jackson discusses the relationship between our identity and the environment we create. He argues that we once established our identity on the basis of the environment, but we now manipulate the environment and its objects to suit our rapidly changing identity:

> Each of us feels the need for something permanent in the world surrounding us, just as we feel the need for a permanent identity for ourselves. This is not merely a matter of security or of objection to change. It is a matter of satisfying a fundamental human urge to be a part of an order which is more lasting than we are: a moral or ethical order which transcends our individual existence. The Romantic generations derived this kind of satisfaction from their feeling of oneness with nature (Zube, 1970, p.152).

In a later article, Jackson describes the three functions of man-made environments--to be a just and efficient social institution, a biologically wholesome habitat, and a continually satisfying esthetic-sensory experience. He again argues that there is something inside us that governs our view of the landscape:

> The view from a height, the sudden glimpse of an expanse of sky or water or city, the unobscured light, the sound of human beings at play, the color and texture of flowers and lawns, the protective enclosed space, or the stream of activity--these are what we are always seeking, because something tells us that they are vital to us" (Jackson, 1960, 9(1), p.11).

This "something inside us" is the major focal point of Jackson's writings. He explains changes in the urban, suburban, and rural landscapes of America and abroad based on the principle that we are a symbolic species that seeks to create and extend consciously and unconsciously an order around us. About the modern American farmer, he writes:

> He still is, and always will be, a designer of environments. His forebears were the same: they sought to design them according to what they conceived to be an order prescribed by nature or divine law; as a product of this century the modern farmer is designing by means of constant experimentation. If

> present techniques backfire he will not hesitate to drop them in favor of others. Dollars are what he is after, of course; but he is also after something like an insight into the truth (Jackson, 1966, 16(1), p.20).

And about the rural dwelling, he concludes: "The present day farmhouse, surrounded by barns and stables and storehouses and sheds, located near the church, the school, the community centre, and the urban residence, is actually the symbol of a parent surrounded by her offspring" (Jackson, 1952, 1(3), p.10). Through his writing Jackson attempted to understand and explain the reason for changes in the cultural landscape and teach people how to read it. Two major goals of this thesis are to present information that provides a scientific foundation for Jackson's analytic approach to the cultural landscape and to present a method which enables us to break the "code" of the human landscape.

In 1976, using a phenomenological approach, Relph wrote Place and Placelessness. "Place and sense of place do not lend themselves to scientific analysis for they are inextricably bound up with all the hopes, frustrations, and confusions of life, and possibly because of this social scientists have avoided these topics" (Relph, 1976, Preface). He concludes that places are "fusions of human and natural order . . . full with meanings . . . important sources of communal identity, and are often profound centres of human existence to which people have deep emotional and psychological ties" (1976, p.141).

Tuan, also a phenomenologist, believes that the landscape "reveals deeper levels of human nature" (1971, p.181). In a number of articles and books (1974, 1977, 1979), he draws upon examples from a variety of cultures to illuminate interesting ways in which man reveals his anthropocentric symbolization (individually and socially) in the cultural landscape. He believes that "constructed form has the power to heighten the awareness and accentuate, as it were, the differences in emotional temperature between "inside" and "outside"" (1971, p.107). Cosgrove (1978) calls both Relph and Tuan idealists, primarily because of the nature of their methodology. While they both reject positivism, they do not recognize the benefits of the dialectical method, as discussed by Olsson (1974), and consequently, contribute "a wealth of humanistic geographical concepts" but no method with which to tie them together (Cosgrove, 1978, p.71).

KEY DEFINITIONS

In this section of the thesis the ideas presented in the literature review will be elaborated. The nature of the communication event will be explained by providing a more detailed understanding of langue and parole; the relationship of the semiotic triangle to the langue and parole model will be examined with a number of semiotic triangles being presented; the role of models in this thesis will be clarified; the implications of learning what one thing is by recognizing that it is not something else will be explored; the relationship of Jakobson's thesis about the meaning of sounds will be related to the field of cultural geography; the relationship of explicit and functional beliefs to these models will be explained; and the nature of the thinking process (neurognosis) in light of langue and parole, semiotic triangles, and the purported universal models of unconsciousness will be explored. They will then be related to the cultural artefact that is the focus of this thesis--the University of Alberta.

The Communication Event

According to Saussure the communication event involves both langue and parole, for one does not exist without the other. Langue consists of all of the words in a language, their rules of combination, and all of the meanings and nuances attached to each word as agreed upon by society. Parole, on the other hand, is the individual act of selection and actualization. An individual cannot create or modify langue; but must learn it and accept it in order to communicate. By learning and accepting langue every individual in society acquires the common base necessary to make individual communication--parole--meaningful. This common base can be explained by Laughlin and d'Aquili's neurognostic structure, which is explained in detail later in this chapter. The complexity of the communication event becomes apparent when we realize that each individual represents a separate parole. Thus, in a discussion a number of paroles is always being put forth. If the discussion culminates in a conclusion or common understanding among the group, a collective parole may have been created. This synthesis of paroles, then, allows for an infinite number of paroles to be created. In contrast, while langue is always growing (as new words are formed), there will only ever be one langue per language.

If this common neurological base exists for language it is entirely possible that a comparable neurological base underlies each other form of human communication, such as music or architecture. It may also be useful to differentiate creative human communication as either verbal or non-verbal for as Leach observes,

> The grammatical rules which govern speech utterances are such that anyone with a fluent command of a language can generate spontaneously entirely new sentences with the confident expectation that he will be understood by his audience. This is

> NOT the case with most forms of non-verbal communication. Customary conventions can only be understood if they are familiar. A private symbol generated in a dream or in a poem, or a newly invented 'symbolic statement' of a non-verbal kind, will fail to convey information to others until it has been explained by other means. This shows that the syntax of non-verbal 'language' must be a great deal simpler than that of spoken or written language (Leach, 1976, p.11).

Roland Barthes also notes that in most non-language "semiological systems the langue is elaborated not by the 'speaking mass' but by a deciding group" (1967, p.31). Given the ideas of Leach and Barthes, then, the langue and parole model can be applied to architecture as follows. The langue of architecture is composed of the understanding of architectural styles, features, and techniques commonly shared by the architectural community. The parole is each individual architect's selection of which style - Corinthian, Gothic, Romanesques . . . etc. - he wants for his purpose. According to Barthes (1967) it is entirely possible that a parole may not be understood outside the langue of the architectural community. Furthermore, just as there may be a number of paroles about any topic in language, there may also be a number of paroles or alternative conceptions of a building or place in architecture. Ultimately, one of the paroles will dominate or a new one be created through their synthesis as one set of plans is drawn up and accepted. Eventually the architectural concept expressed through the plans comes to fruition. And, according to Leach (1976) it is entirely possible that the message conveyed by the building or place may have to be explained to those who do not speak that langue.

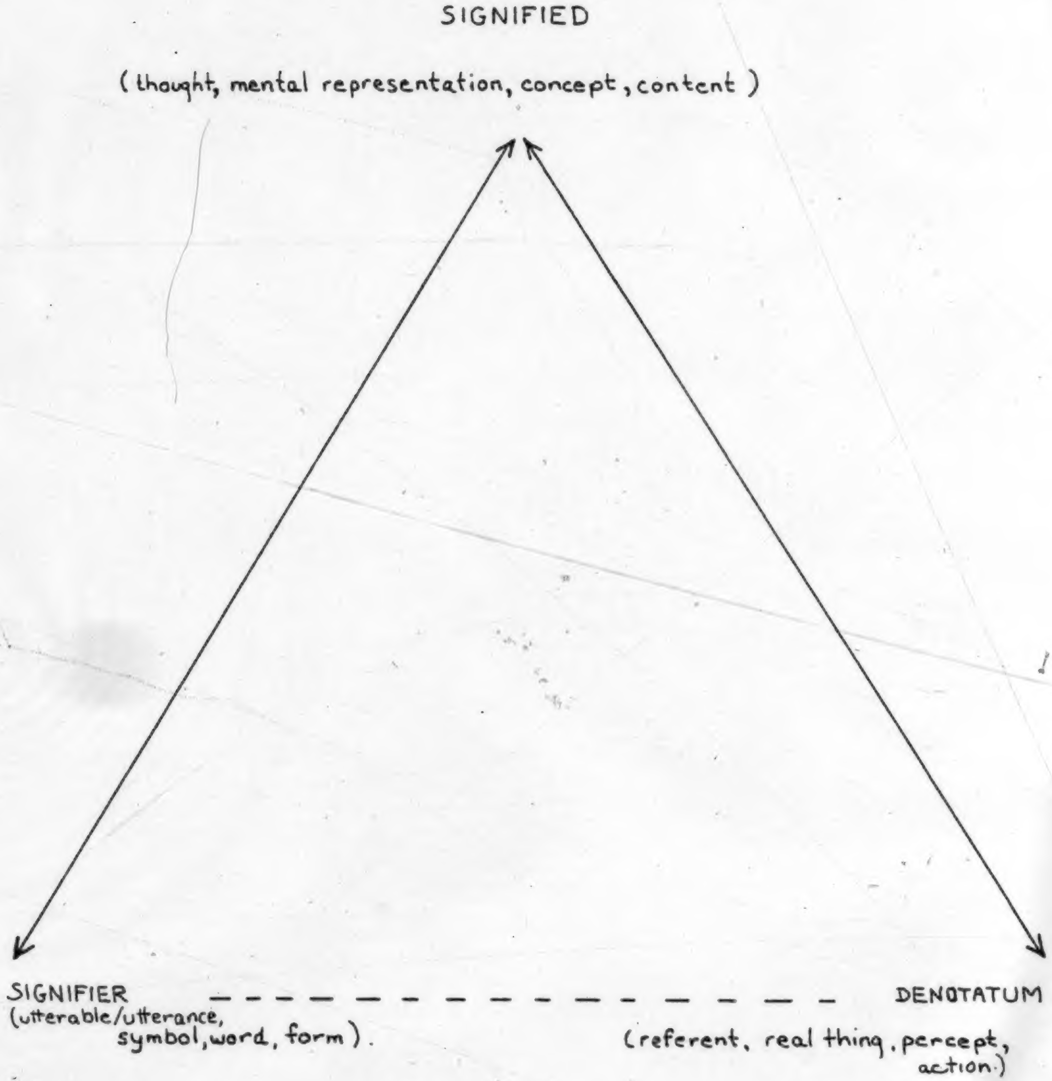
Semiotic Triangle: Basic Concept

Although the concept of semiotic triangle was first introduced explicitly by Ogden and Richards in 1930, its three component parts -

signified, signifier, and denotatum - date back to the Stoics. "They carefully distinguished the mental representation, the real thing, and the utterable" (Barthes, 1967, p.43). The signified represents the thought, concept, attitude, belief, idea, emotion, etc. in one's head, that is, what Olsson called mental phenomena and Laughlin and d'Aquili called neurognostic models. The signifier is the word or form of verbal communication we use to express the signified. The denotatum, at least in the intial formulation, is the material object. In other words, the signifier and signified are transformations of the same thing - the denotatum (Figure II). For example, while the signified or word "tree" in English, "arbre" in French, or "Baum" in German changes, the denotatum to which it refers remains constant. The status of the signified is more problematic. In the case of the example used (i.e. tree) the naive, common-sense point of view that holds that trees exist independently of the human mind is accepted. Following Laughlin and d'Aquili it would seem that, at some time in the life of each individual, a constellation of neurons forms in the brain that, when activated by the appropriate stimulus, leads the vocal apparatus to utter the signifier belonging to the language in which the individual has grown up that refers to the denotatum (tree, arbre, or Baum, as the case may be). For those of us born today, who learn our language from those who already speak it, the signified and signifier are transformations of each other. "In language there is neither signified without signifier nor signifier without signified" (Jakobson, 1978, p.111). It seems reasonable to suppose, however, that at some point in the past, there was an individual who conceived the signified. Whether that can have been done without simultaneously coining the signifier is

FIGURE II

SEMIOTIC TRIANGLE: BASIC CONCEPT


SIGNIFIED
(thought, mental representation, concept, content)
SIGNIFIER
(utterable/utterance, symbol, word, form).
DENOTATUM
(referent, real thing, percept, action.)

a question about which controversy rages implicitly and explicitly. Happily, its resolution is not necessary for the presentation of this thesis. What is necessary is that several classes of semiotic triangle be carefully distinguished from one another. The model of semiotic triangle allows us to understand the relationship between that which goes on in our heads (the neurognostic models of Laughlin and d'Aquili), that which exists in the world outside our heads (whether in the material or non-material dimension of reality), and the most sophisticated means we have developed to mediate between these various aspects of reality--language.

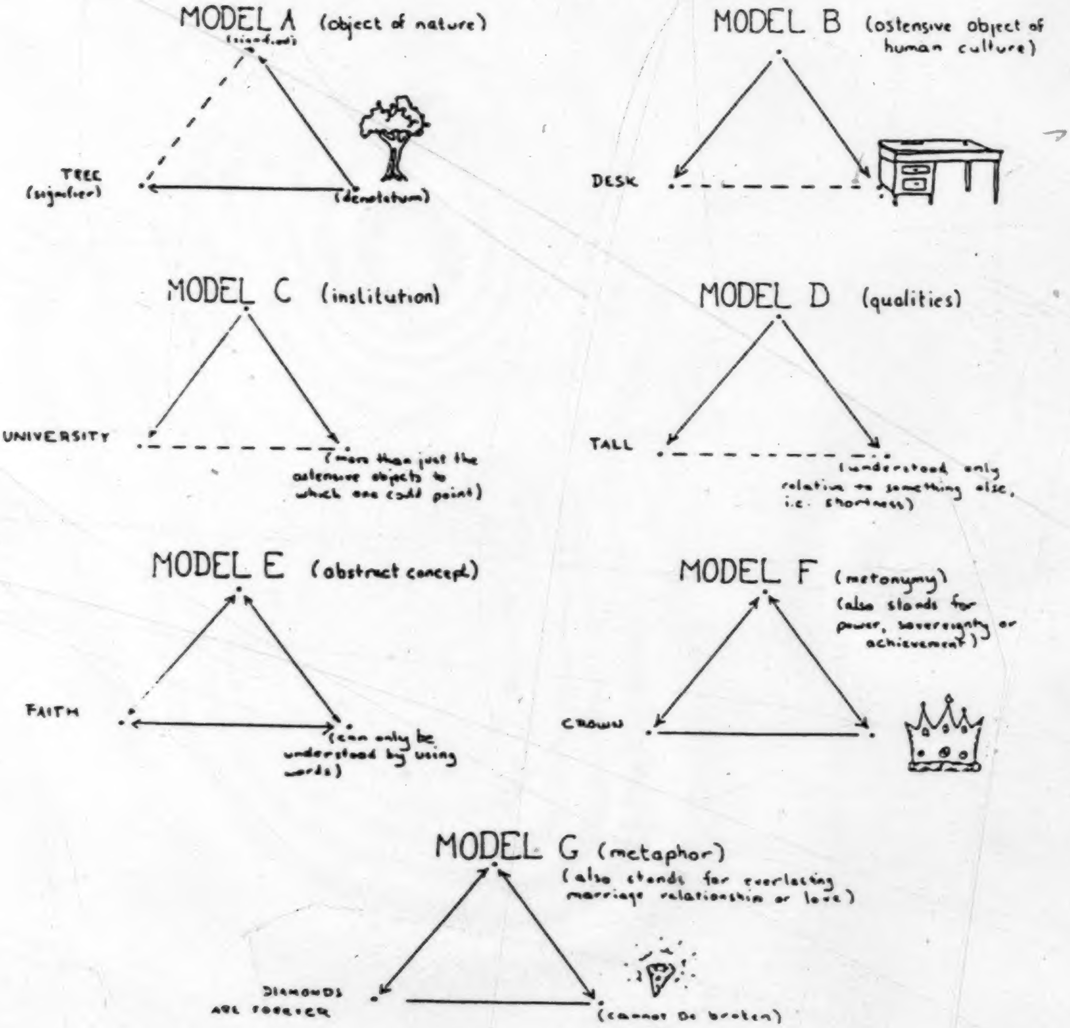
> One crucial point here is that our internal perception of the world around us is greatly influenced by the verbal categories which we use to describe it. A modern urban street scene is wholly man-made and it is only because all the things in it carry individual names, i.e. symbolic labels, that we can recognize what they are . . . We use language to cut up the visual continuum into meaningful objects and into persons filling distinguishable roles. But we also use language to tie the component elements together again, to put things and persons in relation to one another (Leach, 1970, p.33).

Although, as Leach states, a phenomenon is often so bound up with its terminology that the two appear inseparable, it is possible to distinguish types of phenomena by examining different models of the semiotic triangle (Figure III).

Model A refers to an ostensive object which exists independent of culture, for example, a tree. The existence of a tree triggered the development of a signified in man's mind and of a signifier or word label. Model B refers to an ostensive object which is a product of culture, for example, a desk. The signified of a desk existed in the mind before it existed as either a signifier or denotatum. However, either could have been transformed first or both simultaneously. In Models A and B, precisely because the object in question can be pointed

FIGURE III

MODELS OF SEMIOTIC TRIANGLES



MODEL A (object of nature)

MODEL B (ostensive object of human culture)

MODEL C (institution)

MODEL D (qualities)

MODEL E (abstract concept)

MODEL F (metonymy) (also stands for power, sovereignty or achievement)

MODEL G (metaphor) (also stands for everlasting marriage relationship or love)

(signified)
TREE (signifier)
(denotatum)
DESK
UNIVERSITY
(more than just the ostensive objects to which one could point)
TALL
(understood only relation to something else, i.e. shortness)
FAITH
(can only be understood by using words)
CROWN
DIAMONDS ARE FOREVER
(cannot be broken)

to, there is absolutely no dispute as to what the signified refers to.

Model C refers to a social organization or institution. This is a new class of denotata. They are not completely without ostensive attributes or elements, but to claim that such things as schools or legislatures, or business firms, or military regiments, etc. are nothing other than the people who compose them, plus the buildings in which they operate, plus the material objects on which they operate, is to claim too much. In fact, they are all of these material objects and more. They also fulfill important social, cultural, economic, political . . . functions. The fourth class of semiotic triangle, Model D, has to do with signifiers that are not nouns, but rather convey qualities. Signifiers that convey qualities can best be understood as a binary opposition. Something is tall because, or only when, it is not short. Height in and of itself does not exist.

A number of other semiotic triangles might also be proposed. For example, in Model E the signifier represents an abstract concept which has no ostensive denotatum. Its denotatum can only be expressed through words. That is, while we cannot point to "faith", we can discuss it because we have a shared understanding of its meaning (i.e. the definition found in a dictionary). Thus, we rely on language to explain the meaning of these terms.

Model F represents metonymy. Here, the denotatum acts as a symbol for both what it is and for something else. For example, a "crown" as an object has as its signifier or verbal label "crown". However, the signified of crown has several meanings. In certain contexts the denotatum "crown" or signifier "crown" will mean the headgear worn by a monarch; or the top of anything, as of the head; or the part of a tooth that is covered by enamel. In other contexts, the crown will symbolize or stand for the sovereign as head of state; the symbol of a great achievement, the mark of victory; power; or the highest state of anything. The crown in and of itself is not power, victory, achievement or sovereignty, but through collective understanding, the crown has been accepted in langue as meaning more than merely the object to which it refers.

Model G represents the relationship of the parts of a semiotic triangle for a metaphor. "When we use a metaphor we have two thoughts of different things active together and supported by a single word, or phrase, whose meaning is a resultant of their interaction" (Richards, 1965, p.93). The signifier "Diamonds are forever" represents the signified or thought of a life-long commitment to a partnership (marriage). Because a diamond will not break or crack it is seen to be durable; hence, given value in this society. As in Model F, the denotatum represents more than the object it is. A diamond is sometimes just a diamond, and sometimes it is also a symbol of matrimony.

The difference between Model F and Model G or between metonymy and metaphor is significant. In metonymy a part stands for the whole, that is, there is an intrinsic relationship between the denotatum and the signified. It is not surprising that a crown symbolizes power, sovereignty or achievement because it is an object traditionally worn by sovereigns or those in power and given to victors of competitions. Metaphor, on the other hand, "depends upon asserted similarity" (Leach, 1976, p.14), that is, the relationship is non-intrinsic. No doubt many more models of semiotic triangles could be put forward. However, for the purpose of this thesis these seven models will suffice.

The semiotic triangle relates to langue and parole as follows: The signified which represents the thought, concept, attitude, belief, idea or emotion in one's head is a part of parole because it is individual. However, because parole is impossible without the collective understanding of langue, it is ever dependent upon langue. That is, we are able to engage in mental activity because we have a collective understanding of langue. The signifier or word which expresses the signified is a part of langue because it requires societal acceptance in order to exist. However, when it is selected as a part of the speech of an individual it becomes a part of parole. The denotatum may or may not be a part of either langue or parole. The latter is the case in Models A and B where the denotatum is a physical object. But in Model E where "faith", for example, may not exist except as thought or talked about, it is.

Model

A model is a replica of processes, a simplification of reality. It is designed to show the relationship of parts of a whole. It cannot correspond perfectly to reality, nor is it intended to. As the discussion of neurognostic models will show, we think in terms of models and alter our thoughts by coming up with new modified models. In other words, models are the basis of our conscious and unconscious understanding of the world we live in.

The langue and parole model presented in this thesis is designed to explain the relationship between the collective and individual dimensions of verbal and non-verbal human communication. The models of semiotic triangles are formulated to show the relationship between the non-material dimension of reality (that which goes on in one's head and that which cannot yet be measured), the material dimension (that which one can point to such as words in print form or ostensive objects), and language. Thus, it explains how two parts of a metaphor can be considered equivalent. The concepts of explicit and functional beliefs were selected to show that beliefs of landscape creators can be transformed consciously and unconsciously into the cultural landscape.

Oppositions

From Jakobson's research two conclusions can be drawn which have relevance to this thesis. First, his discovery that the phonological system can be classified according to oppositions can be generalized and restated as: we only learn what one thing is when we recognize that it isn't something else. This idea, also represented in Model D of the semiotic triangle, means that elements of the cultural landscape which, to date, have been examined in isolation, should be analyzed in terms of their relationships to other elements. It also suggests that a classification of elements of the cultural landscape is possible if the elements are examined in terms of their opposing/binary relationships. Such will be the task of much of this thesis.

Second, the hypothesis that sounds may have meaning in and of themselves suggests that their equivalents in other social systems may also have meaning in and of themselves. If this is so, Sitwell's (1981) statement about durability as a metaphor in the cultural landscape finds added strength. After all, the building materials which determine durability are to the form of communication called architecture what sounds are to the form of communication called language. This notion will also be examined in the thesis.

Neurognostic Structures

Simon (1957) argues that the traditional theory of "economic" man implies "rational" man:

> This man is assumed to have knowledge of the relevant aspects of his environment which, if not absolutely complete, is at least impressively clear and voluminous. He is assumed also to have a well organized and stable system of preferences, and a skill in computation that enables him to calculate, for the alternative courses of action that are available to him, which of these will permit him to reach the highest attainable point on his preference scale (1957, p.241).

Simon suggests that according to recent psychological and cognitive studies, this model is highly inaccurate. Man's behaviour should not be classed as the product of rational analysis, but as the consequence of his perception of the choices that face him (Simon, 1957, pp.262-264). He argues that although perception is based on past experience, an "organism seldom encounters equivalent situations in its natural environment" (Simon, 1957, p.272). In other words, decisions as to how to behave are based on incomplete knowledge; for this reason, if they are judged on the basis of complete knowledge, they may appear irrational. Furthermore, if I understand Simon correctly, his concept of perception implies that what is perceived is in some way stored in the brain, and altered in accordance with new perceptions of reality.

This brings us back to the work of Laughlin and d'Aquili (1974) who devote an entire book to the explanation of the functioning of the human brain to account for human behaviour. We know from psychology and common sense that we are constantly processing information both consciously and unconsciously. As we are engaged in any activity we are processing information through sight, sound, smell, taste, and touch even though we may not be focusing on all or any at one time. Each type of information travels first to specific parts of the brain (sensory association areas) for initial processing (Laughlin and d'Aquili, 1974, p.48). Each sensory associational area allows the organism "to store up information about an object in the external environment and to reactivate it when the object is once again presented as a stimulus. If a past association has been negative, the object will be avoided; if positive, the object may be approached" (Laughlin and d'Aquili, 1974, p.49). Apparently the organism is able to differentiate positive and negative affects to a stimulus by the type of connection between the association areas and the limbic system. This system of connections is "probably the mechanism by which sustained effort of any sort (learning, recognition, memory . . .) is invested in objects in the environment as they are presented to the visual cortex" (Laughlin and d'Aquili, 1974, pp.49-50).

Biogenetic Structuralism also concludes that we learn by constructing models:

> Species distinguish relevant from irrelevant models of their environment against which they match sensory input for relevance, from which they generate expectations of the state of their environment, and that they modify as the sensory input requires. Models for most organisms are located in sensory association areas, specific exceptions being man and chimpanzee where models may span two or more association areas (p.78).

In short, Laughlin and d'Aquili replace the 'archetypes' and 'universal archetypes' of Jung with a corresponding set of neuro-physiological mechanisms (p.104). They are also able to replace the inherited models of reality postulated by Levi-Strauss (p.105). It also seems probable that, if the brain works in the way they say it does, that Tuan's "deeper levels of human nature" are not idealistic, as Cosgrove asserts

(1978), but actually present in the bio-electronic organization of the brain. Similarly, this would account for what Jackson called the "psychologies" at work on the landscape, the "feelings" of creating something permanent and longer lasting than one's life, and the "something that tells us" about our aesthetic sensory relationship with the environment.

Like Jung and Levi-Strauss, Laughlin and d'Aquili suggest that the brain orders information in a way which is not totally conscious. But unlike Jung and Levi-Strauss, Laughlin and d'Aquili present a picture of what they believe to be the key processes whereby the basic ordering of information is carried on. In this picture the central concept is that of structure. The term structure refers to both the capacity to order information, and the process of ordering. This is, perhaps, unnecessarily confusing. It is as though the same word were to be used for both the vocal apparatus of larynx, tongue, palate, and lips, as well as for the sounds formed by the organ of speech, and also, the patterns of sound that form specific intelligible statements. Some of the capacity to order information, or "structure", is genetically determined and passed on. Other structures are developed autonomously. A structure is "the unconscious processs by which man orders sensory input and alters his environment" (Laughlin and d'Aquili, 1974, p.105). Structures are comprised of elements of some sort and the rules of their combinations. Structures are more or less latent in everybody's thought system. "The structures of primitive thought are present in our modern minds just as much as they are in the minds of those who belong to 'societies without history'" (Leach, 1970, p.9).

Some structures appear to be genetically determined and passed on;

others appear to develop with the human organism. In addition to the universal tendency of a newborn to suck and man to "survive", the structures which are genetically determined are the binary opposition (discussed under REVIEW OF PREVIOUS RESEARCH), including the my-our identification, and the ordering of sensory input into a causal matrix.

The my-our identification is fundamental to our development of a model of reality as it is the means whereby antinomies are overcome. This universal genetically inherited neurognostic structure presents the model of self with conspecifics to form groups. It also involves an alignment of self with the external world.

Another neurognostic structure which appears to be genetically based is the ordering of sensory input into a causal matrix. Biogenetic Structuralism also describes two types of prehension - simultaneity and causality. Simultaneity is "the aspect from which we principally derive our impression of concrete objects, classes of objects, and simultaneous relationships between entities in the real world" (Laughlin and d'Aquili, 1974, p.76). Causality is the mode through which "we derive our sense of flow or process of patterned change, of cause and effect, of the evolution of forms" (Laughlin and d'Aquili, 1974, p.77). As a result of ordering already integrated sensory input into causal sequences man can "explain" that which previously he did not understand.

In short, by postulating universal neurognostic structures Laughlin and d'Aquili attempt to explain what is both culturally and psychologically universal without invoking some sort of Neo-Platonic idealism.

The models or structures which are not inherited genetically are acquired by a process Laughlin and d'Aquili call "inductive-deductive alternation". The process is essentially dialectic. During the deductive phase (Figure IV) we predict what will happen in the real world based on a set of premises and a conclusion drawn from those premises. The feedback from our prediction leads us to modify our premises, and to delete or add new ones as the situation calls for. Then, the deductive phase is repeated (Figure V). The process of inductive-deductive alternation is constantly in action, being fed by sensory input.

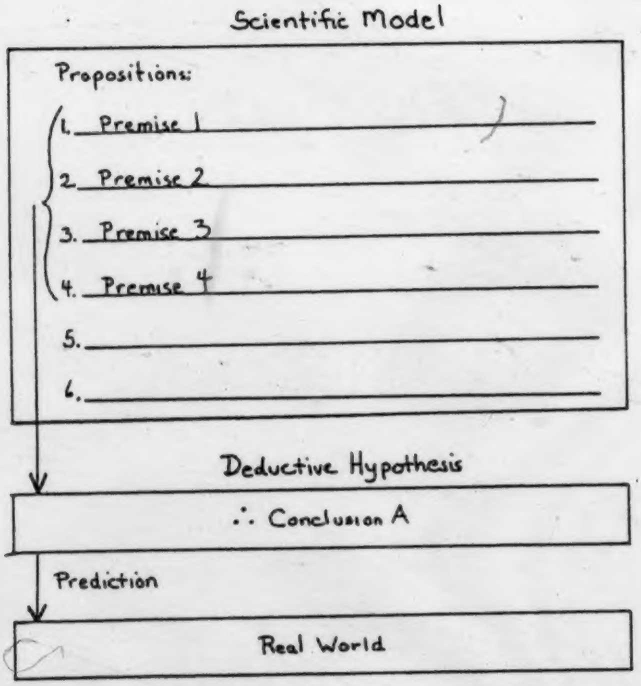
The information provided by Laughlin and d'Aquili supports the contention of this thesis that we, as creators of landscapes, build images of non-material dimension of reality into our landscapes. The fact that we think in terms of models suggests that it is possible that our landscape creations are duplicates or transformations of the models in our heads. The fact that we think in terms of binary oppositions, including the my-our identification implies that our models are largely black and white. It is, therefore, not unreasonable to suggest that the cultural landscape contains a number of antinomies which, once identified, correspond to the antinomies of the model in the head. Ordering sensory input into a causal matrix allows us to constantly alter either the environment or what is in our minds so as to keep the two consistent, similar to the process of deductive-inductive alternation. It also accounts for what may appear to be "irrational" explanations.

Explicit and Functional Beliefs and the Non-Material Dimension of Reality

Sitwell and Latham defined functional beliefs as the state of affairs in the head that leads people to do what they do. In the head

FIGURE IV

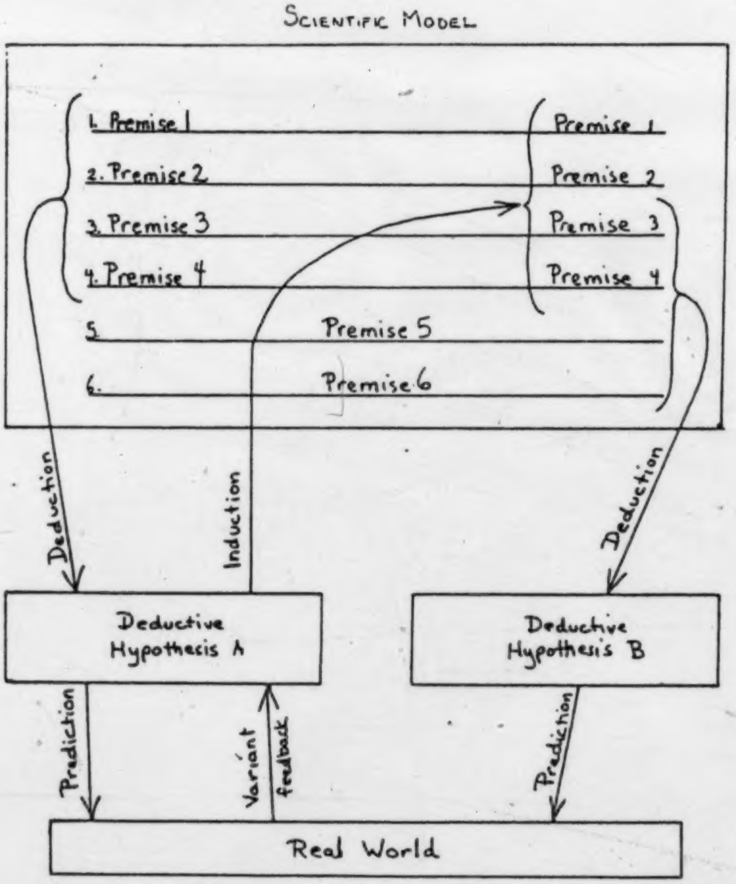
THE RELATIONSHIP BETWEEN SCIENTIFIC MODEL
AND DEDUCTIVE HYPOTHESIS:
THE DEDUCTIVE PHASE


Scientific Model
Propositions:
1. Premise 1
2. Premise 2
3. Premise 3
4. Premise 4
5.
6.
Deductive Hypothesis
∴ Conclusion A
Prediction
Real World

(Lauglin and d'Aquili, 1974, p 148)

FIGURE V

THE RELATIONSHIP BETWEEN SCIENTIFIC
MODEL AND DEDUCTIVE HYPOTHESIS:
FIRST INDUCTIVE/REDUCTIVE ALTERNATION AND SECOND DEDUCTIVE PHASE


Scientific Model
1. Premise 1
2. Premise 2
3. Premise 3
4. Premise 4
5. Premise 5
6. Premise 6
Premise 1
Premise 2
Premise 3
Premise 4
Deduction
Induction
Deduction
Deductive Hypothesis A
Deductive Hypothesis B
Prediction
Variant feedback
Prediction
Real World

(Laughlin and d'Aquili, 1974, p. 148)

there are some neurognostic structures (programs) that guide behaviour. They take sensory input, attempt to match it against established models of what the world is like, come up with some "best" fit which, if the situation is a new one for the person involved (for example, the Caribbs who first met Columbus when he got off the Santa Maria), may be rather rough, and issue a set of instructions to the muscles, with the result that observable behaviour takes place.

An explicit belief is a set of signifiers. It starts with words. As signifiers cannot exist without the corresponding signifieds, there must be signifieds for every set of signifiers. What we say must correspond to something in the head.

The relation of explicit and functional beliefs concerns the relation of two sets of signifieds. The signifieds that are transformed into non-verbal behaviour can be compared indirectly to the signifieds that are transformed into a set of words by comparing the behaviour to the set of words. Do they correspond? We can examine the evidence and make a judgement. For example, a person says that he/she believes that he/she should go to church on Sunday. We hear an explicit belief. He/she goes to church on Sunday. We observe a functional belief. From the evidence we can conclude that the signifieds in the head correspond. The ones that issue the instructions to the muscles in the legs are in tune with the ones that issue instructions to the lips. If he/she does not go to church on Sunday the two sets of signifieds in the head operate independently.

The cultural landscape is a product of what people have done. It is a product of functional beliefs (Sitwell and Latham). If we want to know whether a particular set of people had a consistent set of beliefs, or not, we can look at what they did (the cultural landscape they created), and at what they said (as recorded in written documents), and compare the two. If the two correspond we conclude that the system of beliefs was consistent--and if they do not we draw the appropriate conclusion. It will be a primary objective of this thesis to compare functional and explicit beliefs of the creators of the University of Alberta. The cultural landscape is of particular interest because of the possibilities it offers of comparing the two sets of beliefs, and so revealing whether, and in what degree, they diverge.

Cultural Artefact

The cultural artefact that is the object of this thesis is the University of Alberta. This thesis is interested in the University of Alberta as it evolved in its early years. First, the University of Alberta existed as an idea in the mind of Premier Rutherford (and perhaps other politicians and citizens with whom he discussed the idea privately). Second, it became an act of parliament and acquired its name. Third, it also became a group of persons who had been appointed to the positions sanctioned by the act of parliament and working out of a temporary site. Fourth, it consisted of registered students and staff in the temporary site. Fifth, in addition to the above, it existed as a plan in the minds of individuals charged with giving it a permanent physical plant (President Henry Marshall Tory, a Building Committee, the chief architect Percy E. Nobbs). Sixth, and in addition to the first four points, it existed as a blueprint or plan proposed by the chief architect Nobbs. Seventh, and still in addition to the first four items, it existed as a plan or blueprint modified by the input of the

President and Building Committee. Eighth, and in addition to the first three points, it existed as a physical plant in various stages of construction. Finally, when it had some sort of permanent home, it could be spoken of as a university in the full sense of the word. In the chapters that follow the University of Alberta will be examined in these different stages of its evolution using the seven models of semiotic triangle as a framework for analysis. In the course of the analysis the meaning of the phrase "a university in the full sense of the word" will be explored.

The University of Alberta will also be analyzed as part of the langue and parole model. The collective understanding of the university as an institution is its langue. The general consensus of societal opinion about the university can be found in documents which are repositories of such knowledge, such as dictionaries or encyclopedias. Since this thesis is concerned with the university as it was perceived in the first two decades of this century, it draws on dictionaries and encyclopedias published about that time. This will ensure that no contemporary interpretations are imposed on the model.

The University of Alberta as an institution is a parole, an individual creation based on commonly held notions of a university. It is unlikely that the University of Alberta Building Committee, the architect, the planners, or the President consulted the dictionary or an encyclopedia to determine what a university is. However, it is certain that they had some understanding of what it should be. Their correspondence can be examined as their paroles, and compared to the "definition" or langue. These same paroles (about the University as an institution) can also be compared to those about University buildings or its physical plant. These latter paroles can also be compared to the buildings as they exist as plans on paper, and the plans on paper can then be compared to the buildings or physical plant as built.

Cultural Landscape

In the discussion to this point a number of assumptions about the cultural landscape have been taken for granted. They will now be explicated. The cultural landscape is a series of signifieds which we have transformed into both verbal labels or signifiers, and denotata or buildings, spaces, and spatial arrangements. When cultural geographers examine cultural artefacts as components of the cultural landscape they are examining the denotata part of the semiotic triangle. By recognizing the relationship of the denotatum to the signified, cultural artefacts can be examined in a different light. Some denotata or objects of the cultural landscape are exactly what they appear to be, as depicted by Model B of the semiotic triangle. Other objects of the cultural landscape are more and mean more than the ostensive elements of which they are made, as was suggested by the model of semiotic triangle which represents a social institution. Still other objects of a cultural landscape are endowed with meaning through their juxtaposition to or relationship with other things (Model D). The height of cultural artefacts, for example, is entirely relative. One thing is considered tall only in relation to things around it. Other cultural artefacts appear to act as metaphors (Model G). As such, they can be both what they are and symbolic of something which intrinsically they are not.

The premise upon which this thesis is based is that the cultural landscape, like language, is a social institution. The values and beliefs commonly held about the cultural landscape represent its langue. Each building, structure or spatial arrangement in a cultural landscape is a parole, or individual expression based on some commonly held principles belonging to the langue of the landscape. For example, a log cabin in a wilderness is an individual expression of shelter (parole) based on its builder's understanding, experience, and knowledge about log cabins. This he has acquired from a collective knowledge of log cabins and how they are built (langue). The different notching possibilities, for example, could be seen as synonyms in the langue; the actual one used is the parole of the builder. Applying this to the semiotic triangle, the cabin may be considered more than a mere shelter, which, in fact, Rapoport considers it to be (1969, p.40). It may be a symbol of craftsmanship or pride; or it may be a sign of wanting to live with nature; as such, it may be a symbol of rejecting urban life. Only by gaining information about the beliefs and values of its inhabitants can these propositions be verified. That is to say, if verbal information is an expression of our explicit beliefs, then the material objects we create are expressions of our functional beliefs.

With respect to the University of Alberta, this thesis will examine it as a langue and parole, as the signified and denotatum of a number of semiotic triangles, and as the product of the paroles of a number of committees and individuals.

METHODOLOGY

There are three types of methodology to be used in this thesis. In the second chapter the langue and parole model and semiotic triangles of the classes described in this chapter under the subheading KEY

DEFINITIONS will be compared. The identification of metaphors when they are expressed as signifiers of the built environment will be a part of the methodology used throughout the thesis. The methodology used in the conclusion will also include a comparison of explicit and functional beliefs.

The statements which were made by the people responsible for the foundation and construction of the University of Alberta, and which were subjected to analysis in this statement, were located in the Archives of the University. An attempt was made to identify every statement about the nature and purpose of the University, and the form of its buildings, located in the Archives for the relevant periods. In the case of the buildings every statement that was found is presented in the thesis. In the case of statements about the purpose of the University I selected what I believed to be a representative sample of them. The possibility of bias at this point cannot be excluded.

The Expression of the Semiotic Triangle in the Cultural Landscape

In 1973 the cultural geographer, Henry Glassie, noted that the semiotic triangle could be used as a model that explains transformations which occur in and outside language (p.323). The thought or concept (signified) of a new building in the mind of an architect can be transformed into the symbol of a sketch or design (signifier) and/or into an actual building (denotatum). The architectural designer Treiber describes how the metaphor of language has the power to "[mener] le design" (1974, p.111). The thought or musical composition in the mind of a musician (signified) can be transformed into the symbol of a score (notes on paper or signifier) and/or into music that others can hear (denotatum). Or, the thought or images in the mind of a dancer (signified) can be transformed into the symbol of choreographic instructions (signifier) and/or an actual performance (denotatum). In short, that which is in the mind of man can be transformed into human creation - art, myth, cooking, design, or the human landscape. This is the reason that Rapoport was right when he wrote:

> buildings and settlement are the visible expressions of the relative importance attached to different aspects of life and varying ways of perceiving reality (1969, p.47).

An understanding of the process of transformation in the semiotic triangle has allowed researchers to integrate what they knew intuitively and felt to be true about human creation into a method of inquiry. "Whenever we speak about human creation, we refer not only to the results of physical acts, but also to mental activities in which concepts like hopes, fears, beliefs and intentions play pivotal roles" (Olsson, 1974, p.57).

Transformation is a dialectical process. Information presented in the semiotic triangle flows in both directions. Subject to the processes of neurognostic models, it is constantly altering and being altered. If two symbols can be shown to be transformations of the same thought, by conventional reasoning they can be said to be equal. "Equivalence forms the basis of language and that language serves as the mediator first between what we see and what we think and then between what we think and what we do" (Olsson, 1974, p.55). Thus, a metaphor can be said to show equivalence of two objects which empirically are entirely dissimilar.

Dialectic equivalence and the equality sign of empirical reasoning must not be confused. In empirical reasoning the equality sign denotes identity and existence. Identity reflects the principle that the same labelling word always must refer to exactly the same phenomenon. That is, X is considered identical to Y if and only if X and Y have exactly the same properties. This definition does not allow for the qualitative change or comparison described earlier. Existence implies that the labelling words must have direct counterparts in the world of physical phenomena. Language allows us to refer to denotata whose properties defy metric specification (i.e. they cannot be measured) in order to point out the counterparts (denotata) of labelling words (signifiers) in the world of physical phenomena.

Using the model of the semiotic triangle, the second chapter of the thesis will compare what was said about the University with its actual physical plant (1906-1926) in an attempt to determine to what extent the transformation of the University of Alberta into words corresponds to its transformation into an object. To do so, it must identify a second langue, that of architecture. Then it compares the langue of architecture to the paroles of the President, the Building Committee, and the chief architect and planner. Thus, it answers the following questions: (1) What is meant by UNIVERSITY in the relevant langue? (2) What did those responsible for bringing the University of Alberta into existence mean by UNIVERSITY in their speech (a) when speaking about the social institution, and (b) when speaking about the physical plant? (3) In the langue of architecture, what is the physical plant of a university expected to look like? (4) To what extent did the University, as physical plant, correspond to the physical plant that could be expected (a) on the basis of statements about universities contained in langue, (b) on the basis of the paroles of the people responsible for it? and (5) To what extent did the physical plant of the University correspond to the plant that was designed?

Metaphors

In the discussion about semiotic triangles a metaphor was defined as something which is one thing but means another. A major aim of this thesis is to identify metaphors in the cultural landscape. When Levi-Strauss identified and aligned five binary oppositions (1958, p.142) in Omarakana:

centre	periphery
male	female
raw	cooked
celibates	married
sacred	profane

he actually identified a number of metaphors. The spatial arrangement of the village showed that the centre was generally associated with the men of the village, raw food, unmarried villagers, and sacred events/places. The periphery, on the other hand, was associated with women, cooked food, married couples, and non-sacred events and space. Put another way, the centre could be said to stand for males, for raw food, for unmarried villagers, or for the sacred. The centre symbolizes both what it is and something in addition to what it is. It is a metaphor.

If, as Sitwell (1981) suggests, metaphors in language can correspond to metaphors in the cultural landscape, it is worthwhile to return constantly to language to give direction in finding metaphors in the landscape. Reflection on the semiotic triangle can be of assistance. If, as is postulated in the semiotic triangle, language and the cultural landscape are transformations of the same signified in the mind, they can be said to be equivalent (in the sense just discussed). Thus, they can be compared. Sitwell uses the metaphor "diamonds are forever!" as a sign that durability is a value of human worth, then argues that brick and stone are used as building materials by landscape creators in structures deemed worthy of outlasting their creators. This thesis will examine the use made of brick and stone as the building materials of the University, and compare that use with the statements made by those who created that denotatum.

In Chapter Three metaphors of the sacred will be explored. Eliade states that "the centre . . . is pre-eminently the zone of the sacred" (1949, p.17). He also states that within cosmogony, trees of life and immortality, fountains of youth, etc. are all located at the centre. Generally speaking, as Tuan notes, "sacred places are places of hierophany" (1974. p.146). In *Topophilia*, Tuan also draws up a list of binary oppositions which include both wilderness:paradise and sacred:profane (1974, p.21,144). Within the class "sacred paradise" he includes a monastery, seminary, and university (p.144).

Sitwell and Latham expand on this idea to state that man exerts a conscious effort to build a symbolic landscape. Based on Wheatley (1974), they write:

> it was extremely common to find the physical form and the spatial organization of the cities of pre-industrial societies deliberately built as small-scale replicas of the heavenly world in which lived the gods responsible for our earthly home (p.57).

They go on to present a case for the possibility of assuming that there is also an unconscious expression of beliefs in the cultural landscape. As has already been discussed, this was also the major premise on which

Jackson based his research. Put another way, the cultural landscape is the denotatum or a transformation of the signified held in the minds of its creators.

According to Eliade what is sacred is central, and what is central is, if Sitwell (1981) is to be trusted, a matter of top priority. Based on the research of those who have explored the sacred, a composite meaning of sacred in langue will be presented in Chapter Three. Then, as in Chapter Two, this will be compared to sacred as found in the paroles of those who created the University of Alberta and in the actual physical plant. As such, the sacredness of the University as perceived from both the inside and outside will be presented.

Sitwell also examined height and central location as metaphors of human worth. This thesis will examine to what extent they can be considered metaphors with respect to the University of Alberta. Metaphors of learning and education and the national ideal will also be explored.

Explicit and Functional Beliefs

Sitwell and Latham (1979) introduce the concept of explicit and functional beliefs as a device for operationalizing the concept of the non-material dimension of reality in the work of social scientists. They suggest that the main objectives of the society being examined could usefully be evaluated and classified as being devoted to the solution of one of three classes of problems: (1) those set by the physical environment, (2) by other people, and (3) by the non-material dimension of reality. A society could be categorized into one of these three classes according to the problem to whose solution was devoted the most of its effort. They make the explicit assumption that the more effort was expended the more the cultural landscape would be changed. By this "rule" they are able to use the cultural landscape as evidence about sets of beliefs. While this may be true, it is also accurate to say that any society invests effort in the resolution of problems posed by all three categories. To this end societies create a variety of technologies and social institutions. The University of Alberta was and is such an institution.

At the turn of the century, residents of Alberta were engaged in solving problems in all three categories. Immigrants from Eastern and Western Europe who came to homestead Canada's virgin prairie land were primarily concerned with obstacles set by the physical environment. In the second decade of this century thousands of Albertans went to Europe to fight in World War One. They were primarily concerned with obstacles set by other people. Closer to home, there was considerable political pressure to convert land which was once owned by Alberta's Native People into farmland. The creation of the Indian reserves was an act to protect their land from other people. At the same time, the Alberta Legislature approved large sums of public monies for the construction of a Legislative Building. This investment of time and money (effort) can be said to be a consequence of some beliefs that belong to the non-material dimension of reality. Legislators did not require a building of the size and quality of the Legislative Building to meet their functional needs. Meetings and offices could be rented in existing buildings, or a far more modest plan could have been approved for the Legislative Building. The fact that these options were not considered suggests that the extra effort required for the plan selected was justifable. A building symbolizing power, law and order, citizenship, and leadership was worthy of such an expense (or effort). The Alberta Legislative Building is, in fact, a metaphor in the cultural landscape.

The University of Alberta was also created to overcome all three problems. When designing the campus, the architects and planners took into consideration obstacles set by the physical environment (for example, the laboratories were situated so that they took advantage of northern light), by other people (for example, roadways were built around the University to delineate clearly university land from city land), and by the non-material dimension of reality (after all, the University was a place designed to pursue knowledge, develop citizenship, and cultivate steadfastness, honesty, and other noble characteristics).

There are few precedents in social science research for dealing with the third class of problem. Although Jackson constantly alluded to mysterious forces which directed the creation of the cultural landscape and its appearance, he was never able to operationalize these forces in a way for others to replicate his analysis. For precisely the need to replicate, Sitwell and Latham postulated a fifth dimension to reality--the non-material dimension of reality. To that dimension belong all denotata that cannot be operationalized. Their status with respect to existence is neither dogmatically asserted nor categorically denied. Thus, my previous comments about the Legislative Building and University of Alberta are fairly speculative.

The examination of "words" is an integral part of the methodology of this thesis. There are two major reasons that justify this approach. First, as has already been stated, the models which are used in this thesis have been borrowed and adapted from linguistics. Second, and of equal importance, in the culture of the creators of the University of Alberta, words had meaning:

> One finds that in the Judeo-Christian culture, in which the Old Testament "Word" has an intrinsic sacredness of its own, men are willing to sacrifice and live by and die for words. In this culture a court of law can ask a witness to tell "the truth, the whole truth and nothing but the truth, so help me God", and expect the truth to be told. But one can transport this same court to India, as did the British, with no real success o the matter of perjury because the Indian mythos is different and the sacredness of words is not felt in the same way (Pirsig, 1974, p.344).

Since all of the individuals who exerted an influence on the creation and development of the University of Alberta were of British origin, it can be argued that they believed in what they said.

CHAPTER TWO

THE UNIVERSITY OF ALBERTA AS LANGUE, PAROLE, AND THE SEMIOTIC TRIANGLE

This chapter will apply the langue and parole model to reveal the beliefs and values of the creators of the University of Alberta and, with the assistance of the models of semiotic triangle, will examine how these beliefs and values reveal themselves in the landscape. In other words, it compares the langue of the university as an institution and architectural reality with the paroles of its creators and direct and indirect decision-makers, namely, the President, Board of Governors, Senate, other committees of the University, staff, students, and the public. It also shows how the paroles were transformed into elements of the cultural landscape. The discussion focuses on answers to the following questions: (1) What is meant by UNIVERSITY in the relevant langue? (2) What did those responsible for bringing the University of Alberta into existence mean by UNIVERSITY in their speech (a) when speaking about the social institution, and (b) when speaking about the physical plant? (3) In the langue of architecture, what is the physical plant of a university expected to look like? (4) To what extent did the University, as physical plant, correspond to the physical plant that could be expected (a) on the basis of statements about universities contained in langue, and (b) on the basis of the paroles of the people responsible for it? (5) To what extent did the physical plant of the University correspond to the plant that was designed?

UNIVERSITY OF ALBERTA: THE SEMIOTIC TRIANGLE

The University of Alberta is considered an institution; as such, it is composed of people such as professors, students, administrators, and non-academic staff. It occupies a patch of land which is divided into buildings, spaces, fields, and boundaries. It provides and produces a number of material objects, such as newspapers, bulletins, articles, books, specimens, and other concrete and practical discoveries. But as an institution it also performs a variety of social and cultural functions which cannot be pointed to, such as the storage and transmission of intellectual heritage, the funding and carrying out of research, the provision of intellectual knowledge to assist in practical problems of the community it supports, and the preparation of thinking individuals to guide the society in its future. An institution can be described by Model C of the semiotic triangle where it is acknowledged that such denotata are more than the ostensive attributes such as the people that compose them, the buildings and spaces that they occupy, plus the material objects on which they operate; hence, denotata can also be part of the non-material dimension of reality or mental phenomena.

Before the University reached the state of being an institution, that is, housed in its own permanent home, it existed as an idea, an act of parliament, plans on paper and a physical plant in various stages of construction. When it was an idea in the minds of Premier Rutherford and those with whom he shared it, it was a signifed. When it became embodied in the University Act it became both a signifier and denotatum. It was a signifier because it had an identity (a name) and, as such, had meaning to the local community. It also became a denotatum, although it was still the type that can only be talked about and not pointed to (Model E). What the Act had done was to give the signifier a more distinct meaning. Both the signifier and denotatum are transformations of Tory's signified (see Figure VI).

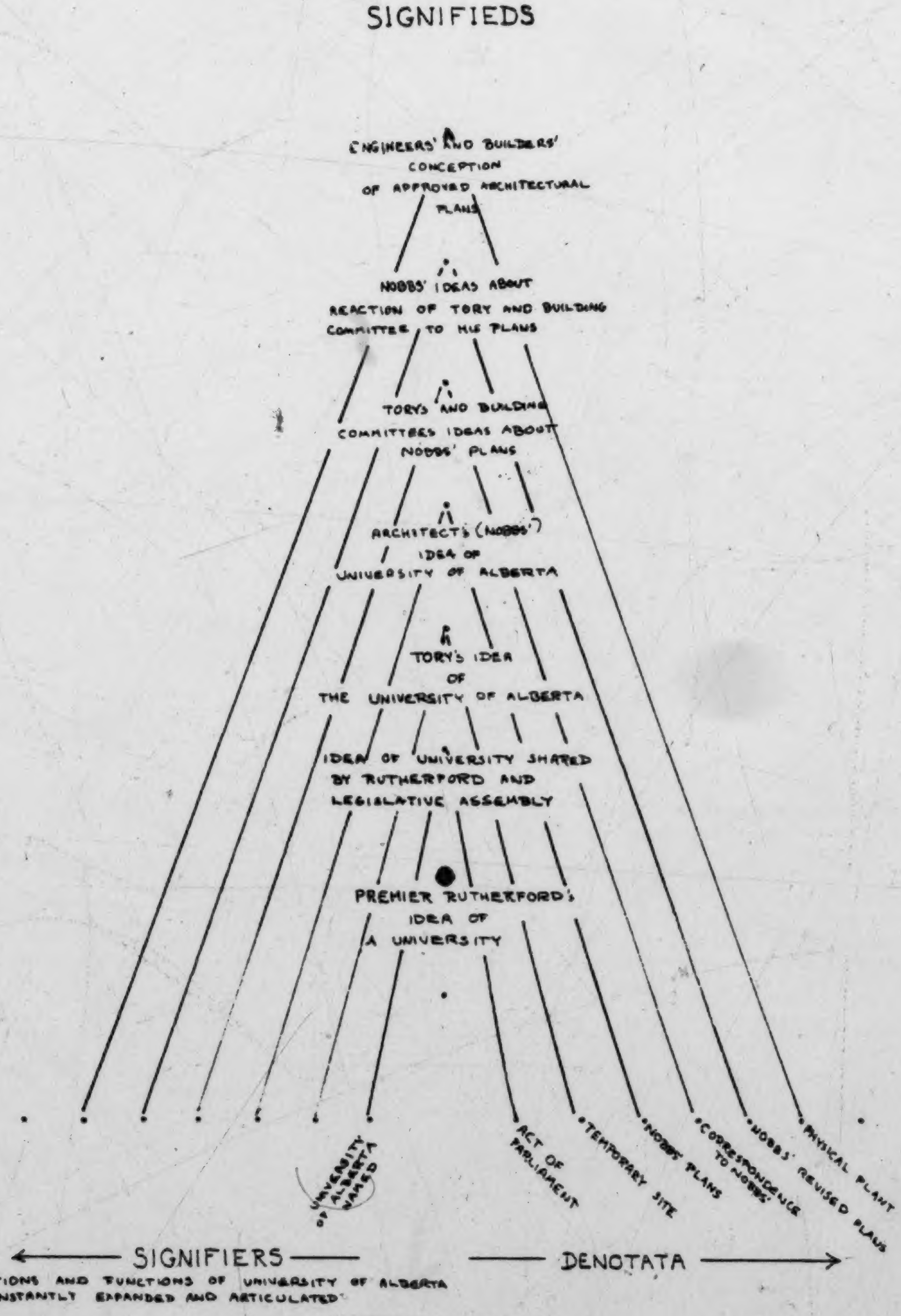
When the University of Alberta became a set of plans or blueprints on paper it was the denotatum of the signified of the architect Nobbs. That is, Nobbs' ideas were transformed into a plan. Then, based on the input of Tory and the Building Committee, revised plans were proposed. They were also a denotatum, this time of a collective or group signified. The physical plant actually built is also a denotatum. It is the denotatum of all of these semiotic triangles - of Rutherford's signified, a transformation of the Act of Parliament, and of the plans. In the latter two cases the original denotata become signifieds which were then transformed (Figure VI).

THE UNIVERSITY AS AN INSTITUTION IN LANGUE AND PAROLE

Saussure stated that langue is a collection of socially-agreed-upon linguistic data which can never appear in its totality. Parole, on the other hand, is an individual expression based on the conscious and unconscious knowledge of langue. It is composed of some, not all, parts of langue. In this thesis the concept held collectively by society of a university as an institution belongs to Saussure's understanding of langue. The University of Alberta, then, can be considered a parole because it is an individual manifestation of society's collective understanding of a university as an institution. To make the comparison of langue and parole possible both must be operationalized according to a common denominator. The general consensus of societal opinion about

FIGURE VI

EARLY DEVELOPMENT OF THE UNIVERSITY OF ALBERTA AS EXPRESSED BY SEMIOTIC TRIANGLES


SIGNIFIEDS
ENGINEERS' AND BUILDERS' CONCEPTION OF APPROVED ARCHITECTURAL PLANS
NOBBS' IDEAS ABOUT REACTION OF TORY AND BUILDING COMMITTEE TO HIS PLANS
TORY'S AND BUILDING COMMITTEES IDEAS ABOUT NOBBS' PLANS
ARCHITECT'S (NOBBS') IDEA OF UNIVERSITY OF ALBERTA
TORY'S IDEA OF THE UNIVERSITY OF ALBERTA
IDEA OF UNIVERSITY SHARED BY RUTHERFORD AND LEGISLATIVE ASSEMBLY
PREMIER RUTHERFORD'S IDEA OF A UNIVERSITY
A UNIVERSITY OF ALBERTA NAMED
ACT OF PARLIAMENT
TEMPORARY SITE
NOBBS' PLANS
CORRESPONDENCE TO NOBBS'
NOBBS' REVISED PLANS
PHYSICAL PLANT
SIGNIFIERS
DENOTATA
DUTIES, NOTIONS AND FUNCTIONS OF UNIVERSITY OF ALBERTA ARE BEING CONSTANTLY EXPANDED AND ARTICULATED

all aspects of a society's knowledge can be found in repositories such as dictionaries or encyclopedia. The Encyclopedia Britannica, 1929 edition, defines the university as "a body devoted to learning and education . . . (which) . . . exercises a helpful local influence". Universities are "living symbols of their liberty and proofs of their intellectual progress or maturity . . . directed by the national ideal". Historically, the university is a traditional, "conservative" institution which deals with "mental activity . . . of (an) unprofitable kind." Since World War One, "international university cooperation . . . plays an extremely important role in university life."

The University of Alberta as an institution is the product of its leaders, staff, students, and the society it serves. In its early years, its development evolved because of the input of the Government of Alberta (specifically, Premier Rutherford), its President, Henry Marshall Tory, its chief architect, Percy E. Nobbs, a Building Committee, its students, staff, and society at large (the people of Alberta). What each of these individuals or groups said about the University of Alberta will reveal their understanding of it as an institution. Thus, langue and parole can be compared by comparing the Encyclopedia's definition of a university to the specific paroles about the University of Alberta. The Tory Papers, housed in the University of Alberta Archives, reveal that the concept of the University in the minds of its decision-makers is quite consistent with the definition stated above. In the pages that follow I have quoted extensively from documents housed in the University of Alberta Archives. Archive file numbers are included in the footnote documentation.

A Body Devoted to Learning and Education. That the University of

Alberta is "a body devoted to learning and education" is explicitly stated in all of the public literature about the University (Calendars, Annual Reports, acts of parliament, student newspapers, letters from the University officials to public institutions and individuals, and University prayers and oathes). The University of Alberta is described as an institution of "higher learning", "devoted to a larger life", and the "search for truth". This is also stated in the paroles of Premier, President, staff, and students.

When Premier Rutherford introduced the bill to establish a provincial university, he said that "education carries with it the greatest of all gifts, namely virtue, knowledge, and judgement . . . and that the crowning feature of any school system is the university". (Edmonton Bulletin, April 23, 1906). President Tory asserted, "it is certainly the function and duty of the University to provide leadership in (all) domains of thought" (letter from Tory to Mercer of the Provincial Labour Party, October 12, 1918, University of Alberta Archives File 68-9-190). W. H. Alexander, the first professor of classics at the University of Alberta said that "the object of a university should then, quite frankly, be to fix its eyes upon one thing only and that is learning, whether in letters or in sciences, for its own sake" (original emphasis, Alexander, 1933, p.23). The students of the University were regularly reminded that their task at the University was "to search for truth" when the university grace, which preceded every evening meal, was recited:

> Grant, our God, that refreshed with this food, we may more steadily follow whatsoever things are true in the spirit of Jesus Christ. Amen.

A Helpful Local Influence. The governing bodies of the University of

Alberta were always interested in exercising "a helpful local influence". To ensure that the needs of the entire Province were kept continually in perspective, membership of the governing bodies was designed to represent the entire province. About the University Senate, Tory writes:

> The University Senate constitutes a body of men representative of the Province. On it are two judges of the Supreme Court, four of the leading professional men of the province, three of the prominent businessmen, the Prime Minister of the Province, and several of the leading educational authorities (letter from Tory to Dr. W. S. Galbraith of Lethbridge, November 29, 1909, University of Alberta Achives File 68-9-188).

In the December 1911 issue of the student newspaper, The Gateway, President Tory submitted an article entitled "The Place of the University in the Province". In it he describes the University as "worthy of support by the people" and "necessary if the foundations of the national life are to be truly laid and the superstructure of national greatness truly reared". There can be little doubt that in Tory's mind, the University was to be of immeasurable service to the Province.

As the University of Alberta was the provincial university, its local domain was both the cities of Strathcona and Edmonton and the province of Alberta. The University's helpfulness to these locales was particularly evident in the role that research was to play. In 1911-12 the University established a testing laboratory "to determine the strength of building materials being used in the province" (Johns, 1981, p.41).

> Because the University of Alberta was publicly supported, the principle was established early of using University facilities for the use of the general public. The Provincial analyst and the Industrial Laboratory were used to test various materials and products for the Provincial Government and for the Public at Large (Catalogue of Tory Papers, University of Alberta Archives, p.23).

"The important duty of economic research of the Province" (Report of the Board of Governors 1919-20, University of Alberta Archives File 68-9-240) was directed at activities considered important by the University:

> The chief activities of the city are wholesaling, coal mining, and meat packing, while the main interests of the Province are agriculture and coal mining. Industrial growth is still in its infancy, but the great resources of the Province in coal, water power, natural gas, lumber, asphalt, etc. give assurance, with the increase of population, of large industrial development for both city and province (Report of the Board of Governors, 1919-20, University of Alberta Archives File 68-9-240).

In 1915 Tory wrote to the provincial agricultural schools stating: "It is my aim and that of the University Senate to make our University of the greatest possible service to our Province" and in 1916 Tory boasted of the University's "helpful local influence" to the federal Minister of Trade and Commerce:

> . . . we are now conducting research on the tar sands of Northern Alberta . . . not, of course, on a commercial scale but on a scientific scale . . . We are also doing work in connection with the coal fields of the district . . . We are also equipped to undertake anything in the chemical line in connection with agriculture . . . Our industrial laboratories are intimately in touch with the cement and oil industry of the Province . . . we have the equipment and have been carrying on research on the radioactive waters of the Rocky Mountains . . . (September 11, 1916, University of Alberta Archives File 68-9-175).

Furthermore, in 1919, the Board of Governors approved a monthly publication entitled The University Review to "deal with problems related to the life of the Province, municipal, rural, social, economic, and political" (Report of The Board of Governors, 1919-20).

The responsibility of the University to its public was emphasized in correspondence from Faculty and in the views of students as well. In 1919 John A. Allan of the Department of Mining Engineering wrote to President Tory requesting more space for his department. The basis of his argument is the obligation of the University to help the people of the Province:

> Mining Engineering today is recognized as by far the largest and most important branch of engineering in this Province and it is only fair to the citizens of Alberta that the University should be adequately equipped not only to give instruction in this branch of engineering, but also to give advice on, and to endeavour to solve some of the many problems, especially in coal mining, that are confronting not only the mining profession and mining engineers in the province, but also the consumer of one of the largest of our natural resources (January 8, 1919, University of Alberta Archives File 68-9-26).

In 1921, R. Newton of the Department of Field Husbandry described his commitment to research in a personal letter to Dr. Tory: I am "one who is keenly interested in research, and values opportunity for this work above all else connected with university life" (September 1, 1921, University of Alberta Archives File 68-9-76).

In the very first issue of the student newspaper, the Gateway, the following passage was included under the section "What we Think":

> (At the University of Alberta) is afforded the sons and daughters of Alberta, many of whom would otherwise be unable to realize it, the means of securing the training which shall qualify them for worthy citizenship in this splendid new country (November 1911, p.12).

This passage is a boost for provincial nationalism, which in itself is a belief in advancing or helping the province.

The assistance provided by the University of Alberta to the Province was also felt by other bodies. The National Testing Laboratories Limited of Winnipeg wrote the following to President Tory in 1924:

> The writer . . . can understand the University starting a laboratory to do commercial work in the interest of the community and to help the natural resources of the Province at a time when there was no one else ready to undertake such work (April 29, 1924, University of Alberta Archives File 68-9-200).

In this case, the Winnipeg firm viewed the University as a competitor.

Students and staff jointly also felt the need to exercise a "helpful local influence" as is evident from the discussion of the Science Association on March 15, 1920 which focused on "the problems in Alberta to which the attention of research men should be turned" (cited in Johns, 1981, p.78). The result of the concern of this association was a letter written by Dr. Tory to Premier Charles Stewart on March 30, 1920:

> I am enclosing to you a memorandum prepared by the Scientific Association of the University of Alberta with respect to certain problems, the solution of which in their judgement, should be undertaken . . .
>
> The Scientific Association . . . was formed . . . immediately after our men all returned from overseas. It has, for its main object, the promotion of research in the Province . . .
>
> A number of meetings of the Society have been held during the winter for the purpose of inquiring into and classifying problems of an economic nature that seem to us pressing for solution. One outstanding fact has forced itself upon our attention, namely, the glaring insufficiency of our knowledge concerning many of the great factors upon which the ultimate success of our Province depends. Great losses have already occurred, due to lack of such knowledge. That our Natural Resources are of enormous value cannot be doubted . . .
>
> May I call your attention further to the fact that these are experiments involving both laboratory and field research and can be solved only by the union of effort on the part of a group of men representing many of the sciences. The University is now, with its scientific men, in a position to undertake this responsibility (cited in Johns, 1981, pp.79-80).

The other fact that shows that the University was destined to be a "helpful local influence" was the establishment of the Department of Extension in 1912. "The development was in line with a movement which was to become very important in the universities of the English-speaking world, the movement to "bring the university to the people" (Macdonald, 1958, p.13). In a letter to the Canadian Northern Railway Company requesting free rail transport for lecturers on tour from the Department of Extension, Tory describes the work of the department:

> The aim of the work of this department is to improve living conditions through the Province by improving the service which the University can give. This is done by means of free lectures by members of the University staff; by aid to and promotion of literary and debating societies; and actual organization of debating leagues; the lending of free travelling libraries and lantern slides to communities lacking the service of Public Libraries; lectures to Farmers' Institutes on economic problems; and the publication of periodical Press Bulletins (November 5, 1914, University of Alberta Archives File 68-9-168).

Judging from the following resolution of the Second Annual Conference for Social Leadership, rural Albertans agreed with this dimension of University work and were obviously grateful for the services of the Department of Extension:

> The Conference also desires to express the thanks of the rural community for the splendid service rendered by the University through its Department of Extension in carrying as far as possible the benefits of the University to the people . . . (University of Alberta Archives File 68-9-7).

Commitment to the National Ideal. Throughout its early years the University of Alberta showed great commitment to the "national ideal". From the time the University Act passed its second reading, members of the public recognized the University of Alberta as an institution devoted to the "national ideal". John T. Moore, the member from Red Deer spoke about the University when the relevant Act was up for second reading:

> . . . I believe in popular government. Follow me, I am a firm believer in democracy, but I admit that democracy has its dangers. Its dangers are from within, of itself, of the people. Yet the Dominion and this Province are irreparably committed to democratic government. But if the Government is to be left in hands of the common people, the people must be as highly trained as it is possible in order that we may have a safe democracy. If safe, the University is the most democratic institution in the world. Democracy began in Europe with the University (reported in Edmonton Bulletin, April 23, 1906).

No greater symbol of supporting the "national ideal" exists than that of going to war for what the national ideal stands for. During the War the University distributed a weekly newsletter to staff and students who had enlisted for overseas service. Additional responsibilities were placed on the University as staff and students used its gymnasium as a training ground, and its hospital as a medical centre for veterans. In addition, it assumed responsibility for training returned soldiers. The high regard exhibited for those who lost their lives for the "national ideal" further reveals the consistency between langue and parole. The Report of the Board of Governors 1919-20 states:

> 51 of our students honorably discharged from the army have come back to the university and manfully resumed their studies; 68 of our young men are not to return. But in the deepest and truest sense it is they most of all who have returned to abide in spirit for ever young with this institution. Their example must remain a deathless inspiration for the University of Alberta (University of Alberta Archives File 68-9-240).

Immediately after World War One, the National Problems Club was created to identify problems of a local nature and to stimulate "the initiative and cooperation of all public-spirited men in solving them" (letter from Professor Ottewell to Professor R. M. MacIver of the University of Toronto, March 8, 1917, University of Alberta Archives File 68-9-168). In 1923, Tory wrote:

> So far as the University is concerned I don't think there is a place in the country where law and order is respected more or where a more definite effort is made to instruct in the significance of law and order or to create a higher sense of citizenship (letter from Tory to Mr. G. Webber of Claresholm, Alberta, October 10, 1923, University of Alberta Archives File 68-9-144).

In 1919 the University Senate approved sending a full-time person to promote Canadian citizenship "in the large foreign colony northeast of Edmonton" (University of Alberta Archives File 68-9-188). There is little doubt that citizenship was a major aim of the national ideal in these post war years, and that law and order is always an aim of government.

Devoted to Mental Activity of an Unprofitable Kind. The idea that the University is an institution devoted to "mental activity of an unprofitable kind" can be exemplified in several ways. First, the Invocation prayer (to be discussed in more detail in Chapter Three) contains a passage that explicitly states that no graduate should pursue glory, gain or wealth based on the knowledge acquired at the University.

Second, with respect to research, Tory makes it clear that the University is equipped to undertake "analytical work not of course on a commercial scale but on a scientific scale" (letter to Rt. Hon. G. M. Foster, Minister of Trade and Commerce, September 11, 1916, University of Alberta Archives File 68-9-175). Tory was obviously concerned about money--he needed a great deal of it in order to continue with the University's expansion projects. However, he was also a man of principles. He believed that the University should be directly responsible for the advancement of science. It may be that, as a consequence of the advancement of science, modern society has also witnessed the advancement of economic and commercial endeavours. However, Tory's explicit beliefs reveal that in his mind the University's first concern was with mental activity of an unprofitable kind.

Finally, there are numerous references in the Tory Papers to the "pursuit of wealth", most of them scornful. In 1918 Acting President Kerr wrote to Tory who was overseas regarding attempts to secure replacement teaching staff. He had approached a professor on leave, C.

A. Robb, at the time employed by the Imperial Munitions Board in Washington, about returning to the University of Alberta. Robb indicated that he would be interested in returning if the University could match his salary of $3600. per year and pay for his travelling expenses to Edmonton. Robbs was told that

> it would always be impossible to make direct comparisons between academic salaries and those of the business world and that we could not offer him anything resembling what he was now receiving (letter from Acting President Kerr to H. Harvey, Chairman of the Board of Governors, December 5, 1918, University of Alberta Archives File 68-9-2).

The letter also asked Robb to submit his resignation if he was not satisfied with the terms offered. He did. About this, the Acting President writes:

> While I am sorry that we are to lose Mr. Robbs' services, it seems to me that his ideas in regard to compensation and rate of promotion are entirely unreasonable and out of relation with what the University can do for other men of his age and status who could be returning from overseas (letter from Acting President Kerr to H. Harvey, Chairman of the Board of Governors, December 5, 1918, University of Alberta Archives File 68-9-2).

The letter also implies that University men were expected to make sacrifices in many ways for their country.

In the early years it was "accepted practice that when an institution such as the University of Alberta puts a professor on full salary he is supposed to devote his whole time to his university work" (letter from Tory to Honourable Horace Harvey, Chairman of the Board of Governors, August 2, 1918, University of Alberta Archives File 68-9-1). Professors who wished to exercise the right to do private work during vacations were still obliged to seek permission to do so. In 1918 when Dr. Revell did not do so, the Acting President brought this to the attention of the Board of Governors. In that letter, the "pursuit of wealth" is again scorned:

> The point that disturbed me in my conversation with Dr. Revell was his frank admission that his chief interest in establishing a laboratory was to discover whether it would pay him better to be the proprietor of private laboratry or to remain with his present position as a professor . . . (letter from Tory to Hon. H. Harvey, Chairman of the Board of Governors, August 2, 1918, University of Alberta Archives File 68-9-1).

That this act of Dr. Revell's had broken the University's sacred rules with respect to the taboo on pursuing wealth for private gain is further evident in a letter from Dr. Revell to the Acting President. On August 2, 1918, he wrote:

> I trust, however, that in carrying on I have not prejudiced my case nor so cheapened my services as to have lost the chance of a hearing and an equitable readjustment (letter from Tory to Hon. H. Harvey, Chairman of the Board of Governors, August 2, 1918, University of Alberta Archives File 68-9-1).

At the same time that acts in "pursuit of wealth" were taboo, acts which reject offers of wealth were to be greatly admired and rewarded. After Dr. Collip assisted in the discovery of insulin he was approached by a member of Johns Hopkins University and verbally offered an associate-professorship there. This offer was made in the presence of Tory who writes, "[and Collip] politely informed him that he was not looking for a job" (letter from Tory to H. Harvey, August 2, 1918, University of Alberta Archives File 68-9-1). In describing the incident to the chairman of the Board of Governors, Chief-Justice H. Harvey, Tory adds, "(t)here is no question that we will have to do something for Collip if we wish to hold him. He has arrived and we will have to recognize that fact" (letter from Tory to Hon. H. Harvey, Chairman of the Board of Governors, August 2, 1918, University of Alberta Archives File 68-9-1).

In the eyes of the University profit making was not to be used as a reward. Of this Professor Alexander writes:

> By learning I mean the patient accumulation of knowledge on the part of staff and students, with the notion of profit-making scotched if it is ever mentioned (1933, p.23).

This is not to say that the University was not proud of its members when they received awards, but the awards must be deemed of a quality recognized by the University. For example, during the Convocation ceremony Honorary Degrees are conferred on certain candidates. "The purpose is not to bring honour to the University, but to confer honour upon the recipient" (letter from Tory, August 16, 1921, University of Alberta Archives File 68-9-10).

International University Cooperation. The influence of "international university cooperation" on the development of the University of Alberta is probably most clearly shown by the work of its President. In the early years Tory made special efforts to keep plans and policies of the University of Alberta in line with recent trends of well-established universities in North America by sending out surveys to these universities. In 1909 he surveyed the relationship between university research and the interests of the state (University of Alberta Archives File 68-9-201). In 1920 he surveyed about the proposed Faculty of Education (University of Alberta Archives File 68-9-120), and the taxing formula used in other states and provinces to tax the University (University of Alberta Archives File 68-9-35). In 1922, he surveyed about the relationship of the University to the state hospital (University of Alberta Archives File 68-9-50).

During the war years, Dr. Tory's efforts to encourage inter-university cooperation were exceptional. The creation of Khaki University, which "was so much a product of President Tory's initiative and administrative competence" (Johns, 1981, p.61) served over 50,000

Canadian soldiers stationed overseas. Tory's initiative was highly regarded at home. The Edmonton Journal writes:

> No review of education progress, during the past year, would be quite complete without some reference to the Khaki University of Canada which, born on the bloody battlefields of Europe, may yet be regarded as a child of Alberta (August 30, 1919).

Tory also regularly attended and contributed to the annual conference of the Universities of the Dominion. In his President's Report of 1916 he discusses the third annual conference, held in Montreal: "A desire was expressed to so adjust the standard of courses offered in the various Universities that students might pass readily from one University to the other." Tory also made attempts to organize regular meetings of senior administration of Western Universities. The idea of sharing information and developing a "much more active spirit" were its aims (Letter from President Tory to President Murray, University of Saskatchewan, November 4, 1920, University of Alberta Archives File 68-9-65). He also encouraged his staff to participate in university exchanges, about which President McLean of the University of Manitoba wrote:

> The exchanges form an excellent means of interchange of views and serve a useful purpose by enabling members of the University to meet with others engaged in similar work (October 20, 1920, University of Alberta Archives File 68-9-241).

Inter-university cooperation was felt at the student level in a variety of competitions. On the playing field, in the gymnasium, or during public debates, teams of the University of Alberta took on teams from other Canadian and English-speaking universities. The first such encounter occurred against the University of Saskatchewan in 1912.

Academic staff also felt a need to keep abreast developments in the leading academic institutions of the world. In the early years they were expected to finance at least part of the expenses incurred for their upgrading away from the University of Alberta. But, even then, the University lent support to these efforts.

External bodies were also interested in keeping the notion of a university consistent throughout the country. In 1916, for example, the Minster of Trade and Commerce sent out a survey to all Canadian universities requesting information about research guidelines, facilities and equipment (July 15, 1916, University of Alberta Archives File 68-9-11).

THE UNIVERSITY OF ALBERTA AS A PHYSICAL PLANT IN LANGUE AND PAROLE

To this point of the discussion, the paroles presented have focused on the University of Alberta as an institution. Paroles about the University of Alberta as a physical plant can also be identified and compared to the notion of a university in langue (p.51 of this thesis).

Although approval to create a university came from the provincial legislature and the provincial legislature was responsible for its financing, this body had little to do with the University's day to day development and existence. Indirectly, it still held the reins, however. The legislature appointed "distinguished citizens" to sit on all university committees, boards, etc., hired a president under whose leadership the development of the physical plant and the selection of staff were determined, and approved funds to employ the services of the architect and planner. Thus, the individuals empowered to make decisions about the physical plant of the University were President Tory, The Building Committee, and the chief architect and planner. Although the object of this discussion is not to determine which creator (or whose parole) exercised the greatest influence on the growth and development of the University of Alberta, it is worthwhile mentionning how each creator was able to contribute.

It has already been established that Tory had a clear vision of what the University as an institution was to be. His correspondence with the architect, Percy E. Nobbs, reveals that he also had a clear vision of what the University was to look like. In fact, after reviewing all of Nobbs' files at the University of McGill, the author of a biography about Mr. Nobbs and his contribution to architecture refers to the University of Alberta as "his [Dr. Tory's] university" (Wagg, 1982, p.47).

The Building Committee met periodically and based its discussion and decisions on the information provided by President Tory. The minutes and other correspondence also suggest that Tory fully exercised the influence of his unique attributes to move the Committee's decisions in the direction he favoured; that is, he was the only member with a Ph.D., the only member with experience developing a university (he had just completed a feasibility study for a university in British Columbia when he was offered the presidency of the University of Alberta), the only member with any university teaching experience, the only member who received access to all University correspondence, and the only permanent member of the committee over his twenty year reign.

Tory also had as great an influence over the appearance of the physical plant of the University of Alberta as he did over its development as an institution. Not only did he continue to sway the opinions of members of the Building Committee in his favor, but he was able to veto many of Nobbs' ideas. Correspondence from Nobbs to Tory and the Building Committee reveals the former's frustration with Tory's ignorance of architecture:

> the symmetrical disposition of buildings round courts or quadrangles on so enormous a scale lacks in my view any aesthetic value commensurate with cost and convenience involved. The grouping should be more intimate and expressive of purpose, and the general idea of such a quadrangle is hardly interesting enough to be worthy of repetition. Twins are not a group architecturally (August 20, 1909, University of Alberta Archives File 68-9-29).

The final parole to be examined in connection with the physical plant of the University is that of Percy E. Nobbs, the chief architect and planner. Mr. Nobbs, in fact, was primarily responsible for proposing the ideas which were incorporated into the physical plant of the University of Alberta and drawing up plans based on those ideas and others proposed by Tory and the Building Committee.

Nobbs had experience designing university architecture at McGill, and lectured on architecture there. He received his architectural training in Scotland and articled with Robert Lorimer (1864-1929), a romantic traditionalist. From Lorimer he learned the Arts and Crafts philosophy set forth by William Morris.

> A development of the Gothic revival, the Arts and Crafts movement represented, in essence, a human protest against the devastating effects of nineteenth-century industrialism. It involved an attempt to purify architecture and design (Wagg, 1982, p.2).

He received several architectural awards and travelled widely throughout Europe. In 1901 he joined the London County Council where he was influenced by the two prevalent architectural philosophies of the day - grand Beaux-Arts-inspired planning and architecture aimed at transforming London into an imperial capital rivalling Napolean III's Paris, and a socialist-inspired philosophy directed at improving life for the city's poor (Wagg, 1982, p.3). All his life Nobbs was interested in planning and design. Nobbs arrived in Canada in 1903, accepting a post at the University of McGill.

In the next pages evidence will be presented to show how the University of Alberta as a physical plant embodied the factors identified in langue of a university as an institution, namely, its devotion to learning and education, to being a helpful local influence, to the national ideal, to mental activity of the unprofitable kind, and to international cooperation.

A Body Devoted to Learning and Education. The idea that the University was devoted "to learning and education" was transformed into a proposed carving on the Arts Building. Nobbs describes it as follows:

> I send you a sketch showing the sculptural group I propose. The intention is to represent ancient and modern learning, the ancient learning being symbolized by the old man with the lamp and the scroll while modern learning has a book on her lap and a globe at her feet. This last item is to remind us that a knowledge of things as they are began with the discovery that the world was round (Nobbs to Tory, September 29, 1914, University of Alberta Archives File 68-9-29).

A Helpful Local Influence. The University as "a helpful local influence" can be expressed in terms of its importance. Something or someone that is helpful is important to those that are being helped. The Building Committee constantly referred to the University as having a "monumental" character. A monument is something built to commemorate a person or event of importance or of influence. It is designed to outlive something by acting as enduring evidence of its existence. If, as Sitwell has suggested (1981), building materials can endow a building with durability, then the use of stone and brick as the chief building materials of the University can be said to be metaphors of durability. The Building Committee was quite insistent about the use of these materials. The minutes of the meeting of the Board of Governors on

August 22, 1912 about the University Building scheme state:

> that the materials employed should be brick and stone, the proportion of stone to brick being increased in the more important buildings, but the character of brick buildings with stone dressings and trimmings being maintained throughout the scheme . . . (p.2).

Sitwell also notes that a structure in the landscape which is tall will be understood to be important because its height is accepted as a physical metaphor. Both the Building Committee and the architect insisted (though each in its own way) on using height to make the Arts Building monumental (i.e. important). First, the original plans for the campus contained one tower over 100 feet high and a number of bell towers and turrets on top of the provincial buildings (museums and library). However, the Building Committee felt that the tower was too expensive for its utility (April 11, 1913, University of Alberta Archives File 68-9-29) and suggested, instead, that stone and brick and increased elevation be used to make the Arts Building more monumental in character. Stone and brick and increased elevation, their version of height, were metaphors for importance. This notion is also supported by Tuan, who writes:

> the meaning of spatial dimensions gains immeasurably in power and clarity when they can be seen in monumental architecture and when people live in its shadow. Ancient Egypt and Mesopotamia have enlarged mankind's consciousness of space, heightened people's awareness of the vertical and the horizontal, of mass and volume, by constructing their exemplars in the towering shapes of pyramids, ziggurats, and temples. We have inherited this knowledge. Modern architects design with these dimensions in mind. The layman, sensitized to the dramatic play of thrust and repose, learns to appreciate it wherever it appears, in nature as well as in man-made objects that have no aesthetic pretension (Tuan, 1978, p.108).

The architects, however, persisted on the tower. It was "a most essential feature of the building scheme as a whole" Nobbs argued on April 11, 1913 (University of Alberta Archives File 68-9-29). Even in

1914 Nobbs suggested a detached tower with a clock, similar in design to the tower which earned him the prestigious Royal Institute of British Architects Tite Prize in 1900 (Wagg, 1982, p.3). The architects argued that it held the architectural scheme together and served "as a landmark for 40 miles round" (letter from Nobbs to Tory, February 25, 1914, University of Alberta Archives File 68-9-29). Nobbs felt that this new tower

> should rise with a perfectly plain brick stack from the middle of the laboratory yard so that it will show above the main group of teaching buildings to all persons approaching them (letter from Nobbs to Tory, February 25, 1914, University of Alberta Archives File 68-9-29).

In short, the importance of the University to the province and people of Alberta was expressed in its physical plant through durability and height. Or, to put it another way, durability and height were used as metaphors of the monumental and the important by those who planned the University's physical plant.

Commitment to the National Ideal. The importance of the "national ideal" is visible in the spatial organization and relative location of the physical plant of the University. First, it was located across the river from the Legislative Building. This was a point of great pride, being mentioned in all of the early Calendars: "The University of Alberta is located on the south side of the North Saskatchewan River across from the Legislative Building." Second, the original discussions about the University plans (letter from Nobbs to Tory, August 20, 1909, University of Alberta Archives File 68-9-29) and the revised original plans (Figures VII and VIII) all include a State Library, and Provincial Museum. Third, by name, it is suggested that the University of Alberta is a state institution.

Devoted to Mental Activity of an Unprofitable Kind. In Tory's parole, mental activity of an unprofitable kind was considered synonomous with analytic work on a scientific scale (as opposed to commercial scale). The scientific mind is highly logical and rational. Thus, it is not surprising that the symbolic features proposed by Nobbs to "imbue (in) the alumni . . . the spirit and sentiment of culture and education" (letter from Nobbs to Tory, August 20, 1909, p.9, University of Alberta Archives File 68-9-29) were never approved of by Tory and the Building Committee. To them, money was too highly valued for ornamentation. Indeed, the idea of approving funds for a clocktower or stone carvings on the Arts and Medical Buildings was more likely to raise questions on the part of the alumni. On a limited budget the approval of funds for such ends simultaneously prevented an equivalent amount of money from being spent on a real necessity, such as a laboratory, research assistant, or subscription to a journal. The absence of ornamentation was an expression of the value held for the scientific mind, that is, for logical and rational decision-making. It showed that the University dollar had been wisely invested in a dominantly functional physical plant.

Nobbs felt strongly about the image the physical plant of a university should project. In 1919, when plans for the Medical Building were being discussed, Nobbs wrote Tory about his impressions of the newly-completed Hart House at the University of Toronto: "A millionaire's club is not the atmosphere for a college" (October 9, 1919, University of Alberta Archives File 68-9-29). Clearly, money allotted to the building program was to be used wisely and practically. Extra dollars to construct something that would be permanent were considered fruitful use of funds; ornamentation, albeit symbolic, was not.

International Cooperation. The notion of "international cooperation" may well have been expressed by the "elastic-free classical style in accordance with modified English traditions" (Wagg, 1982, p.50) of the physical plant of the University. This architectural style was proposed by Nobbs as an alternative to the then fashionable collegiate gothic (Wagg, 1982, p.50) for practical reasons.

> The present vogue for Collegiate Gothic was characterized as an exotic affectation which would soon pass out of fashion . . . The civilization and methods of XIV century England were totally inapplicable to XX century Western Canada, while the free classic style was the natural building tradition of the English speaking world . . .
>
> The style of the buildings was to be uniform throughout: "an elastic free classic style in accordance with modified English traditions, work of this character being eminently suitable to the kind of windows and roofs most practicable in the locality, as also to the materials and labor available" (Nobbs as quoted in Johns, 1981, pp.40-41.)

To Nobbs, the style he proposed was representative of the English speaking world. There can be little doubt that the University of Alberta was intended to be an institution for Alberta's British stock. The report of the Board of Governors 1914 notes that with 84 percent of students coming from British homes, "our own British stock is an overwhelming and re-assuring preponderance" (Report of the Board of Governors 1914, p.159). "This will indicate that the future leadership in the Province will remain for some time in the hands of the national stock" (Report of the Board of Governors 1914, p.13). Furthermore as the Encyclopedia Britannica (1929) notes, the names of the great English universities were almost synonomous with university. Bearing in mind that at the time the English-speaking world extended to every continent, this architectural style can be said to be "international".

Given that Nobbs was a lecturer in architecture at McGill, we can assume that he was familiar with the values the architectural community associated with the elastic-free classical style. If we again assume that what the Encyclopedia Britannica (1929) has to say about this style is an accurate account of the values of the architectural community, then what is written may further justify Nobbs' preference for this style. The Encyclopedia states:

> During the last decade of the last century "free classic" was almost the recognized style in English architecture, and has been illustrated in many town halls and other large and important buildings.

Indeed, the free classic style may be considered a metaphor for importance and there is no doubt that all those associated with the Univeristy of Alberta, including Nobbs, considered it important.

The Encyclopedia of American Architecture, albeit a more recent publication (1980), calls the principles of classicism a deep belief "in reason, ideals, and analysis, in what were considered to be universal truths; and in the good and the beautiful, meaning that which was clear, symmetrical, reposeful, and derived from traditional classic forms" (Hunt Jr., 198 , p.80). Given the above commentary, it may also be said that the architectural style selected by Nobbs was also a metaphor for "learning and education", and thus highly suited to a university.

UNIVERSITY AS AN ARCHITECTURAL CONCEPT IN LANGUE AND PAROLE

It is interesting to note that the Encyclopedia Britannica includes a lengthy passage on university architecture after its section on universities in general. In this respect it identifies the university as perceived through another langue - that of architecture. Thus, there is a general societal consensus of opinion about both what a university is and what it is to look like, that is, its physical plant. In this section of the thesis what was said about university architecture in the encyclopedia will act as langue and what was said about the architecture/physical plant will act as parole, and the two will be compared. Again, Tory, Nobbs, and the Building Committee exercized the most influence over the design of the physical plant of the University of Alberta.

Although Tory held the reins, Nobbs was the chief purveyor of information from the langue of architecture. In order to appreciate the full impact of Nobbs' parole, his plans and revised plans for the University of Alberta must be examined, even though many of their features never came into existence. To this end, the content of this section overlaps with the answer to the fourth and fifth questions of the thesis.

The Encyclopedia Britannica (1929) states that university buildings are "designed to be permanent harmonious entities . . . which permit expansion and embody all possible known improvements". The "heart of (the university) is the campus (q.v.) or college yard." The paroles of those responsible for the development of the physical plant of the University will now be examined for evidence of these characteristics. Later, evidence of these same characteristics in the actual physical plant will be presented.

Permits Expansion. University planners were constantly concerned with a scheme which "permits expansion". In 1909, the chief architect, Nobbs, reminded Tory that "teaching buildings are the things which grow and grow very unevenly" (Nobbs to Tory, August 20, 1909, University of

Alberta Archives File 68-9-29). The University Calendar of 1919-1920 states that the "grounds, comprising some 637 acres, afford ample room for expansion" (University of Alberta Archives File 68-9-240). In 1920 Dr. Tory reminds the architect Nobbs, who had recently written an article about the architecture of the University of Alberta, that the plans rejected by the University were ones which "did not overcome the difficulty of definite and continuous extension of buildings (and) . . . make a continuous expansion possible" (Tory to Nobbs, December 10, 1920, University of Alberta Archives File 68-9-240). In 1921, Tory was asked to comment on the building of the University of Alberta with the view in mind of assisting President McLean of the University of Manitoba. He writes: "The outstanding purpose in my own mind in making the plan was to secure a scheme that would be continuously expansive" (November 3, 1921, University of Alberta Archives File 68-9-241).

Permanence. The decision makers were also concerned with "permanence". In 1920 Tory proudly boasts that "not a single building was started on these grounds on a temporary basis" (letter from Tory to Nobbs, December 10, 1920, University of Alberta Archives File 68-9-240). Permanence can also be a synonym for durability. Thus, the discussion on favouring the use of durable building materials is also evidence that the architectural concept of the University of Alberta should be designed to be permanent. Although Nobbs supported this idea in principle, the following excerpt from one of his letters to Tory reveals two important observations:

> We are now sending you revised elevations for the proposed Arts Building and a report. Please get your people to accept the brick and stone design. In the first place I do not build stone fronts with brick backs when a building can be seen all round and with brick introduced in the front it is an easy matter to simplify the treatment in the rear for the sake of economy without making the building look ridiculous. Moreover, there is

> sure to be a lot of brick building with comparatively meagre stone dressings in the neighborhood of this building sooner or later (Nobbs to Tory, April 11, 1913, University of Alberta Archives File 68-9-240).

In this passage Nobbs insists on maintaining certain architectural principles when combining brick and stone, and specifies that stone will be the building material which distinguishes University buildings from others in the neighbourhood. In other words, stone is more valuable than brick as a building material.

The Campus Yard as Heart of the University. The Encyclopedia calls the campus yard the "heart" of the university. Tory definitely believed that the quad was a significant feature of the University of Alberta (Figures VII and VIII). As has already been stated, Nobbs thought that Tory's notion of courts and quadrangles was obsessive. Nobbs' proposed plan for the University of Alberta (Figure VIII) reveals the importance he attaches to the central yard. When the plan was finally approved and under way, Tory described it as follows:

> In planning our teaching buildings we took an ordinary college quad and turned it inside out, planning to build our main buildings not fronting a great square as is usual but with their facades outward reserving the square itself for the development of our laboratory scheme and the extension of any buildings belonging to the main fronts. This permitted us to build our laboratory buildings, for example, our Mining Engineering and Civil Engineering buildings, of very simple design without any architectural features at all and suited to the requirements of the case. Our special scientific buildings like Chemistry and Physics will be built in due course into the general scheme. For example, the whole Department of Chemistry has just been completed, the front part being part of the front of the Medical Building. This joint building, which will ultimately have an extension at the back to give about three times its present capacity without changing the front of the building at all (Tory to President McLean of the University of Manitoba, November 3, 1921, University of Alberta Archives File 68-9-241).

Embody All Possible Known Improvements. University architecture was also expected to "embody all possible known improvements". When Nobbs

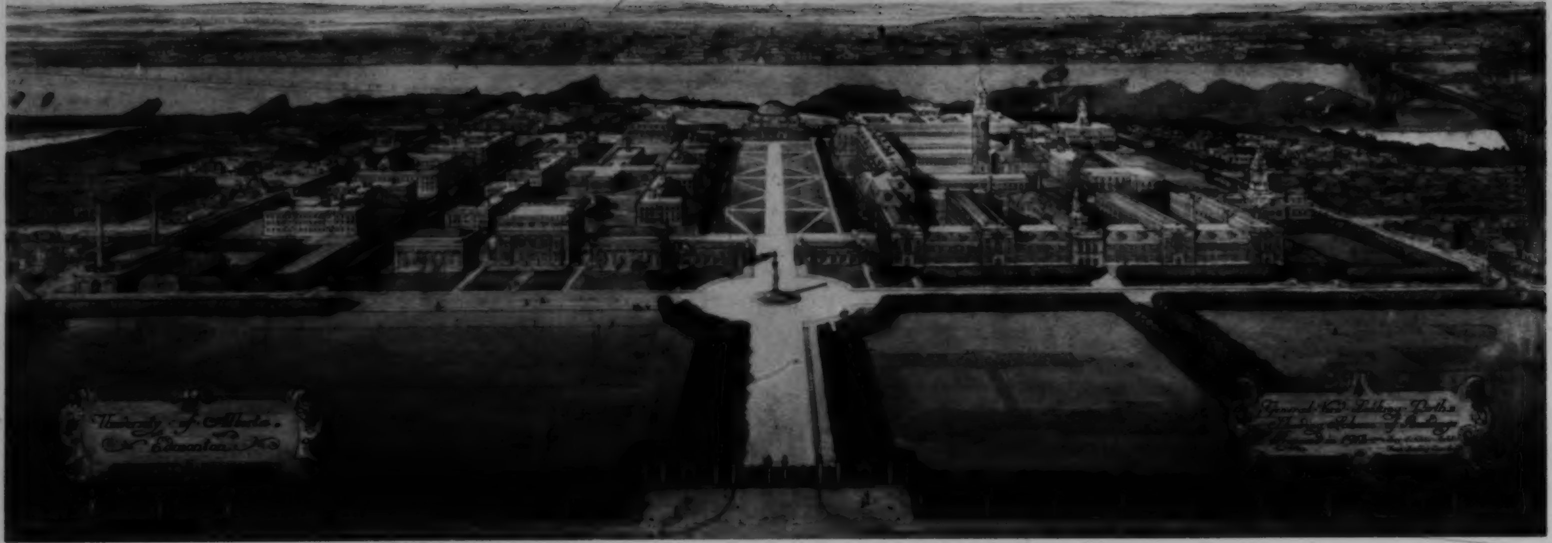

University of Alberta,
Edmonton

FIGURE VII General View of University of Alberta Looking North,
Showing Scheme of Buildings Proposed in 1912

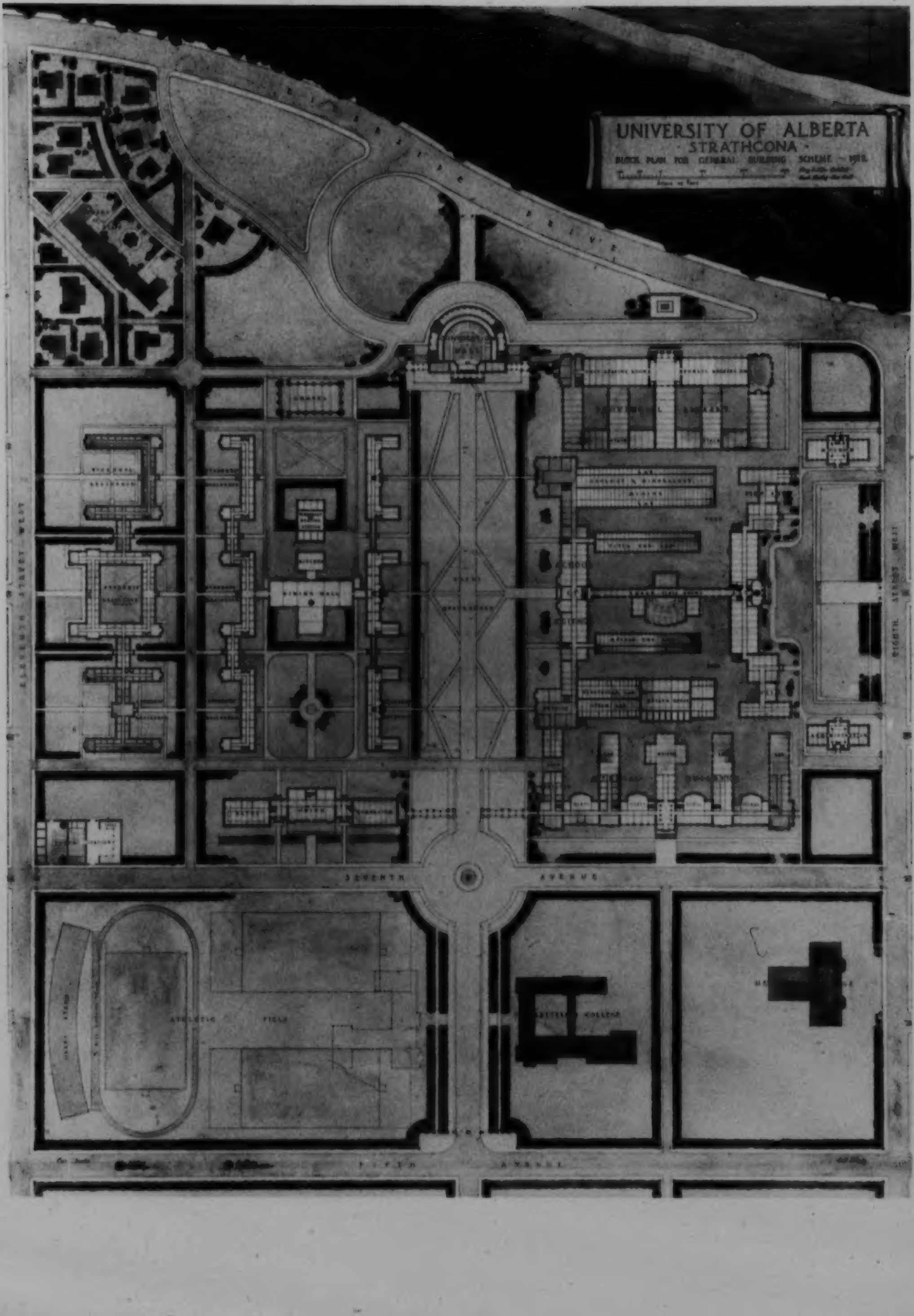

UNIVERSITY OF ALBERTA
· STRATHCONA ·
BLOCK PLAN FOR GENERAL BUILDING SCHEME – 1912
DRIVE
SEVENTH AVENUE
ATHLETIC FIELD
EIGHTH STREET WEST

FIGURE VIII University of Alberta Block Plan for General Building Scheme--1912

proposed a central clock tower, he argued that it was designed as an experiment in the tortion of wire, pendulums, and the laws of gravity. An experiment is a test of something new, in this case, of an improvement in tortion.

The 1914 Calendar describes the campus plan as the "work of eminent Canadian architects and designers and represents a singularly fortunate combination of convenience and artistic taste" (p.19). It seems logical to assume that architects and designers of this calibre keep abreast the most recent developments in architecture. Indeed, they may well have earned their reputations based on their ability to integrate "possible known improvements" into their design. In 1921 Tory called the plans for the University of Alberta "somewhat novel in university construction" (Tory to McLean, November 3, 1921, University of Alberta Archives File 68-9-241). Again, it seems safe to assume that the novelty of the construction is based on its embodiment of recent improvements.

Conservative in Appearance. While it was desirable that the University respect modern architectural improvements such developments had limitations. The university was still expected to have a "conservative" appearance. One set of plans revised by Nobbs in 1913 had "a good deal more of restraint and collegiate feeling about it" (Nobbs to Tory, October 1, 1913, University of Alberta Archives File 68-9-29).

EVIDENCE OF THE UNIVERSITY OF ALBERTA AS AN ARCHITECTURAL CONCEPT IN ITS PHYSICAL PLANT

To this point of the discussion, the paroles presented have focused on what was said about the University of Alberta as an architectural concept. The ideas about the University of Alberta as an architectural concept were shown to be consistent with the ideas about a university as an architectural concept as presented in the verbal paroles of those who influenced the development of the University. The ideas about a university as an architectural concept were said to belong to langue of the langue and parole model. These same ideas, when examined according to the semiotic triangle, are signifieds. Thus, these signifieds were shown to be transformed into words or signifiers (paroles). Having provided evidence that these signifieds were transformed into signifiers confirms that the signifieds were in place. Thus, it is also possible that they were transformed into other signifiers or denotata. The object of this section of the thesis will be to present evidence that these same signifieds were also transformed into proposed and/or actual features of the physical plant of the University of Alberta.

The "permanence and harmony" of the University of Alberta can be expressed in its use of brick and stone, as has already been discussed. That a university must "permit expansion" is evident in the acres and acres of space allotted to agricultural experimentation and the large quadrangle between the student residences and main teaching buildings (Figures VII, VIII, IX, and X).

The Oxford Dictionary suggests that the heart of the campus is the college yard. A great quadrangle 300 feet wide and 1200 feet long was proposed by Nobbs in the revised plans of the University to separate the residences and teaching buildings. To what extent the quadrangle was used is difficult to calculate. However, students must have crossed it several times a day moving from the residences to the teaching buildings (a university student was obliged to live on campus) and back to the

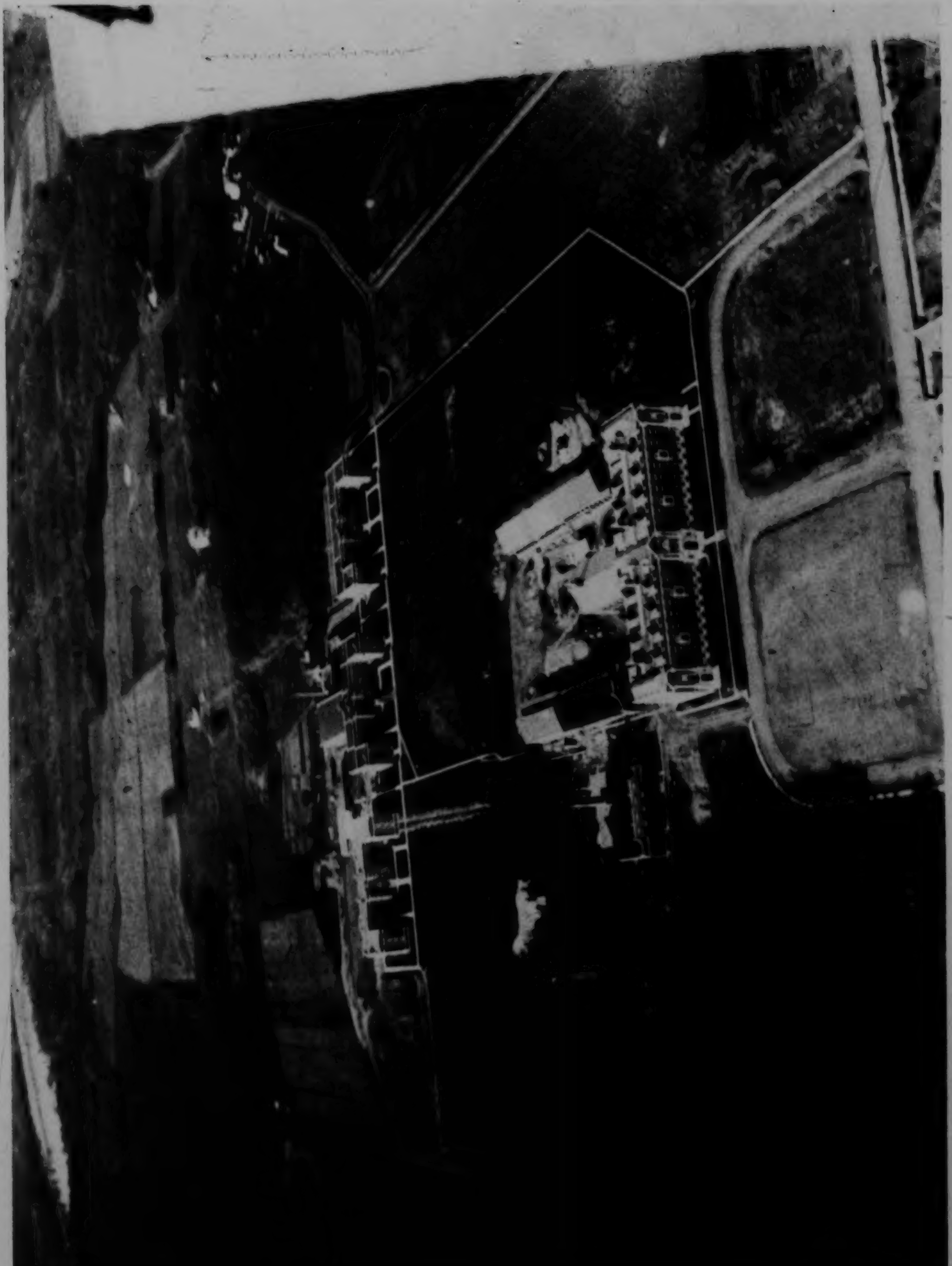


FIGURE IX Aerial View of University of Alberta--1919

A-24-93
DMONTON-ALBERTA

FIGURE X. Aerial View of University of Alberta--1925

dining hall which was located behind one of the residences (Figure X).

While it is unlikely that the Building Committee (including Nobbs and Tory) consulted a dictionary or encyclopedia to determine what a university either as an institution or an architectural concept were, it is clear that their notions agree with those of the encyclopedia; hence, parole with langue. The paroles of the Building Committee also constitute the signifier of the semiotic triangle, with the actual physical plant constituting the denotatum. The sketches of the plans and revised plans were also referred to as the denotatum for the purposes of this discussion.

THE PHYSICAL PLANT AS PLANS, BUILDINGS, AND SPACES

To this point the discussion in this chapter has compared what was said about a university as an institution and architectural concept with that which was said about the University of Alberta as an institution and architectural concept. It has also suggested that this examination can be considered either an analysis of the langue and parole model or an analysis of the transformation of signifieds into signifiers of the semiotic triangle. It also presented evidence that what was thought about the University as an institution and architectural concept could be transformed into its proposed and actual physical plant. The physical plant in its various stages of development shall be the focus of this final section of the chapter. Unfortunately, many of the sketches of proposed features and plans sent to Tory by Nobbs have been lost or destroyed. Thus, the discussion relies heavily on what was said, as opposed to what was done.

The physical plant of the University of Alberta has been examined as it was talked about. It also manifested itself into both plans on paper and later three dimensional buildings and spaces. As such, the plans on paper are: (1) the architectural parole of the architect Nobbs (as opposed to a verbal one); (2) the denotatum of a semiotic triangle, and (3) the signified of a semiotic triangle on which the construction of the physical plant was based. The physical plant can be described as it belonged to all three parts of the semiotic triangle. This exemplifies rather well the operations of the brain which are used when a mental phenomenon or neurognostic model is transformed into a cultural artefact of the cultural landscape. The object of this final section of the chapter will be to compare the plans and physical plant as built.

The original sketch of a plan for the University of Alberta made in 1910 called for the grouping of university buildings around a quadrangle with building facades facing north, south, and east. The location of the three residences, Athabasca, Assiniboia, and Pembina Halls, had been settled as had the location of the Arts Building where excavation had already been completed. In the future there was to be a medical building at the south end of the quadrangle, facing south, a convocation hall at the north end, also facing south, a combined gymnasium and union building south of Pembina Hall in fairly close proximity to the proposed stadium backing on the present 116 Street, engineering buildings west and south of the Arts Building, and a library at the north where the present Earth Sciences Building stands. There were even plans for a separate administration building to the north-east of the Arts Building with a fine arts building close by. A site for the Presbyterian-affiliated Robertson College was set aside west of Alberta College South (Johns, 1981, p.40).

The revised original plans (Figures VII and VIII) called for a Museum, Arts Building, Provincial Library, Science Building, Convocation Hall, Residences, Chapel, Residential Colleges, Dining Hall, Power Plant, Medical Building, Administration Building, Gymnasium, numerous laboratories, and athletic fields. The east half of the campus was designated for work areas - laboratories, classrooms, administration, libraries and museums. The west half contained residences, staff housing, a central dining hall, athletic field, gymnasium, chapel, and a completely sectioned-off power station. These two halves were separated by a "great quadrangle". At the south end of this great expanse of garden were the main gates to the University grounds. Exactly opposite the gates on the northern side stood Convocation Hall, semi-circular in shape. All of the buildings were to be based on the same elastic-free classic architectural style with numerous carvings and monuments proposed to symbolize what the University stands for.

Of the revised original plans, only the Arts Building, three of the student residences and Medical Building were built according to plan. The design of the Power Plant remained as proposed, but it was relocated. Many of the buildings which were not built were designed to fulfill individual functions. Most of these functions were still met, but in ways other than those called for in the revised plans. For example, the Dining Hall became an extension on to the back of one of the student residences. Convocation Hall, the Chapel, and the Library were integrated into the Arts Building. The Administrative facilities were also located in the Arts Building. Neither the Provincial Library and Museums nor their functions are mentioned in the Tory Papers.

Sitwell argued that height, durability, and the spatial organization of a landscape can be metaphors of the values of its landscape creators. Height and the use of durable building materials have already been discussed. The next paragraphs will examine the spatial organization of the University as a metaphor for values of those that created the University of Alberta. It would probably be more proper to state that the spatial organization proposed was the direct product of the architect, and because it was accepted, the indirect product of Tory and the Building Committee. Sitwell cited the example of Levi-Strauss' study of Omarakana to exemplify the spatial organization of centre-periphery. The centre was associated with things and people of importance while the periphery was home to the ordinary. Since Omarakana was circular in form, the centre was clearly visible. But not all spatial organizations are circular, nor are their centres so easily discernible, as will be discussed in Chapter Three. The University of Alberta, in fact, is based on a grid.

The University of Alberta is a planned human landscape. Plans are designed in advance in order to save time in construction and replicate perfection. In this respect a plan is similar to an 'ideal city' or a cosmogony. Both ideal cities and cosmogonies are designed as metaphors. They are both cities/cosmogonies and symbols of something greater. Their architects often clearly spell out the meanings of their symbolism (Rosenau, 1974). Many planners of ideal cities and cosmogonies chose circular shapes as the spatial form of their landscapes because "all the grand forms in nature are round" (Rosenau, 1974, p.149). Others chose squares or quadrangles. While the circle symbolized purity and perfection, the quadrangle symbolized other "ideal" values. The Greek checker-board type of town plan, for example, "expressed primarily aesthetic concepts of regularity and order" (Rosenau, 1974, p.21). In the 1500s Alberti claimed that approaches in large towns and fortified cities should be straight "to express greatness and dignity" (Rosenau, 1974, p.50). The Pythagoreans associated "light", "straight", "right", and "square" with "good" (Guthrie, 1962, p.245). Thus, the right angles of the grid plan may also be a symbol for "good". In "The Origin and Spread of the Grid Pattern Town", Stanislawski (1946) states that the grid pattern "can be extended indefinitely without altering the fundamental pattern or the organic unity of the city . . . [it is a neatly] predetermined scheme" (p.106).

There is also a historical precedent for basing educational institutions on the grid. The plans for New Lanark drawn up by Robert Owen (1771-1858) were designed to meet the need for wide-spread educational opportunities. They were "based on squares and subdivided into parallelograms" (Rosenau, 1974, p.143). Even earlier (1628), Furttenbach planned schools of a quadrangular design with a chapel or library in its centre (Rosenau, 1974, p.78).

The chief architect of the University of Alberta was trained in Scotland and greatly influenced by the Arts and Crafts movement, "a humane protest against the devastating effects of the Industrial Revolution. The movement involved an attempt to purify and improve architecture and design by getting back to fundamentals based on the reasonable, time-tested methods of the old builders and craftsmen" (Wagg, 1982, p.2). Nobbs was also very interested in city and regional planning (Wagg, 1982, p.4). The possibility that Nobbs was conscious of the symbolism of the grid described by Rosenau and speculatively inferred from Stanislawski, and of the principles put forth by Owen, and that he selected the grid as the basic spatial pattern of the University because of that symbolism should not be overlooked.

It has already been established that the notions of a university as an institution are visible (to those who know how to read them) in the physical plant of the University. A case has also been made for the visibility of notions of university architecture in the University of Alberta. Both discussions, however, included evidence from ideas that never reached fruition, that is, they never appeared as part of the physical plant of the University, either as revised plans or when built.

The consistency between ideas presented as paroles and those manifested into the actual physical plant will be discussed as a comparison of explicit and functional beliefs in Chapter Four.

Thus, the idea of "permanence" in university architecture can be symbolized by both the use of building materials such as brick and stone, as has already been noted, and by the spatial organization of the campus. The fact that the University was allocated a 258 acre site suggests that expansion was definitely possible. The grid form of spatial organization also symbolizes expansion. The University took into consideration all possible known improvements by selecting an architectural style which was not "vogue", but classical and more suited to its monumental character. The grid plan is also a classic plan, its recorded significance dating back to the Stoics. Thus, it can also be considered a metaphor for "all possible known improvements". Finally, as Figure X shows, the central courtyard, or "heart of the campus" was a major feature of the grid plan. Thus, Sitwell's contention that spatial organization is a metaphor in the human landscape finds support in the example of the University of Alberta.

CHAPTER THREE

BINARY OPPOSITIONS

SACRED/PROFANE, CULTURE/NATURE, CENTRE/PERIPHERY, MALE/FEMALE

In the course of the discussion of neurognostic structures in Chapter One, reference was made to the universal tendency to order reality in terms of pairs or binary oppositions. The major difficulty with binary oppositions, although a number of geographers have used the tool (Tuan, Sitwell, Glassie, Relph), is identifying them, or knowing the order in which to discuss them, once they have been identified. In linguistics some rules must be applied in a certain sequence in order for a consistent pattern to reveal itself. Similarly, some binary oppositions reveal more if they are presented in a specific order. This order seems to be based on a primacy of beliefs--not that some are less important than others, simply that they follow chronologically as transformations of others.

In terms of the primacy of binary oppositions I believe that the antinomy sacred-profane must be treated first. If I am right all the others will follow coherently afterwards. While the observation that they do follow coherently would be interesting in an empirical sense, I believe that a theoretical case can be made for the primacy of this pair. In the first instance this will be done in the case of a society that accepts the sacred explicitly. After that, the case of a society that, in explicit terms, looks on the sacred as belonging to the realm of the supernatural, and therefore, sees it as something that belongs, at most, to the realm of private, subjective belief, or, in the opinion of many, as something that belongs to traditional, pre-industrial, pre-scientific societies. The langue and parole model will again be used to initiate the investigation. Evidence from archival sources, however, is more indirect. The object of the chapter is to answer the following questions: (1) What is meant by SACRED in langue? (2) What did those that influenced the development of the University mean by SACRED in their paroles (a) when talking about the University as an institution (i) with reference to the world outside the University and (ii) from within, and (b) when referring to its physical plant? and (3) How do other binary oppositions align themselves with the sacred-profane antinomy as it reveals itself in the case of the University of Alberta?

THE SACRED IN LANGUE

In traditional society the people believe that they can, for example, summon rain. The rain belongs to Model A of the semiotic triangle--an ostensive object which exists prior to or alongside culture: it is natural. The spirit seen from inside the society is a part of the non-material dimension of reality--it is very real in the minds of those participating in the ritual. In order to control the invisible forces of nature, man must, however, behave in a certain way. He must guard his behaviour so that his actions and/or words do not offend these forces. Such offences are "taboo". In order to keep these forces content and under control, man must have a means of communicating with them. As creations of man they must occupy some sort of space; they must be material. As such, they must reside somewhere and have a place to reside when communicating with man. Man, therefore, creates meeting places where he can encounter these forces--churches, temples, mosques, cemeteries, etc. These forces, their meeting places, and other transformations of them are considered holy or sacred. In such places rules of behaviour are very unambiguous and strictly adhered to. Any violation of these rules in these locations would be blasphemous. Violations in other locations would be profane. If the ground or space is not sacred, then it can be considered profane.

To understand fully the power attributed to the sacred by those who believe in it, it is useful to review the observations of scholars who have studied societies where the sacred is sacred. Eliade says that the centre is sacred, talks about existence being "attained only in an area dominantly sacred" (1957, p.18), and describes a rite of passage universal among the peoples and religions he analyzed--"from the profane to the sacred, from the ephemeral and illusory to reality and eternity, from death to life, from man to the divinity" (1957, p.18). In Patterns of Comparative Religion (1963) he says that "the sacred is absolutely, invulnerable, steadfast, beyond change" (p.25), identifies "the sacred value of knowledge" (p.57), notes that "high places are impregnated with sacred forces" (p.101), and writes that "the sacred attracts and repels, is useful and dangerous, brings death as well as immortality" (p.384). He also calls perfection sacred:

> Perfection in any sphere is frightening, and this sacred or magic quality of perfection may provide an explanation for the fear that even the most civilized societies seem to feel when faced with a genius or a saint. Perfection is not of this world. It is something different, it comes from somewhere else (1963, p.14).

To paraphrase Eliade, man longs for sacred space because he needs to transform things into transcendent things (p.385).

Tuan states that something can acquire a "sacred character wherever it is identified with some form of divine manifestation or with an event of overpowering significance" (1974, p.146). He also states that space is sacred if it attempts to create order out of disorder (1974, p.146). "Of course, not everything that is set aside spatially is sacred space, . . . The word sacred signifies apartness and definition, it also suggests order, wholeness and power" (Tuan, 1978, p.84).

Malinowski (1925) identifies those "traditional acts and observances, regarded by the natives as sacred, carried out with reverence and awe, hedged round with prohibitions and special rules of behaviour. Such acts and observances are always associated with beliefs in supernatural forces, especially those of magic, or with ideas about beings, spirits, ghosts, dead ancestors, or gods" (p.18).

Leach considers the sacred equivalent metaphorically to the "abnormal, timeless, ambiguous, at the edge" (1976, p.35). He explains this:

> There is always some uncertainty about just where the edge of Category A turns into the edge of Category Not -A. Whenever we make category distinctions within a unified field, either spatial or temporal, it is the boundaries that matter; we concentrate our attention on the differences not the similarities, and this makes us feel that the markers of such boundaries are of special value, 'sacred', 'taboo'.
>
> The crossing of frontiers and thresholds is always hedged about with ritual, so also is the transition from one social status to another (p.35).

From the explorations of Eliade, Tuan, Malinowski, and Leach, there seems to be a consensus that the sacred relates to religion, to ideas of the supernatural, to spirits or gods, to rites of passage, to existence, to taboos and special rules of behaviour, to power, to knowledge, to perfection, to the permanent, and to places that are high or centrally located. This, therefore, is "sacred" in the langue of pre-industrial people. When Laughlin and d'Aquili (1974) put forth the notion of a genetically inherited neurognostic model, they included a neurognostic model which, at least in part, accounts for the sacred. The ordering of sensory material into a causal matrix explains how we account for what we do not understand or what we fear:

> The strong need to explain things in terms of efficient causality (in the Aristotelian sense) can often undercut the practical value of this model of reality. Thus when a strip of reality (string of events) is presented to man without an initial terminus (first cause), man immediately fills the "defect" by elaborating a mental construct. Thus "powers", spirits, gods, etc. come into being, partly at least, to satisfy the cognitive imperative by supplying first causes to strips of observed reality. In this sense, gods, spirits, and "powers" are an integral part of the causal neurognostic model of reality as it has presently evolved. Modern men of science are no exception (Laughlin and d'Aquili, 1974, p.117).

This model also suggests why we seek psychological mastery over the environment. Since the sacred of modern societies has been rarely explored, since the meaning of the word sacred has not changed in over 2,000 years, and since at least some notions on which the sacred is based appear genetically inherited, it seems possible that the contemporary view of sacred is similar to that of pre-industrial people. The balance of this chapter will be based on the assumption that the characteristics of sacred in the langue of pre-industrial societies are the same as those of the more modern society that was responsible for creating the University of Alberta.

SACRED IN THE UNIVERSITY OF ALBERTA ACCORDING TO THE PAROLES OF ITS CREATORS

This section of the thesis will examine how well the paroles of the creators of the University of Alberta correspond to the criteria of sacred as identified in langue.

Religion and Supernatural

Information about the religious background of students was important to the powers that be at the University. Statistical data about religious affiliation was published in all of the early annual reports of the Board of Governors and the minutes of the meeting of the Senate on April 14, 1914 report that the "University has confidence that all shades of religious opinion and, while not preponderatingly representing any one, with marked proportional equality represents them all."

The national censuses of 1901 and 1911 reveal that most residents of Canada belonged to one variety of Christianity or another. Since a number of churches were built in Edmonton at this time, one can assume that the people registered in these censuses went to church (otherwise why would churches have been built?). Statistical data from the University Archives show that the majority of students belonged to christian religions. It can, therefore, also be assumed that the majority of University students and staff valued religion. Since prayers were a part of everyday life at the University (the dinner prayer discussed in Chapter Two) and rites of passage (the Invocation Prayer to be discussed later in this chapter) and since religious colleges were affiliated with the University, religion seems to be associated with the University.

The supernatural is usually considered to be not of this world. About the university, one of its first staff members, Professor Alexander, writes: "Now the university may be at its best not of this world . . ." (1933, p.38). The University was, therefore, at least to some of its members, removed from this world. It and what it stood for were sacred.

Rites of Passage

There were two important rites of passage associated with life at the University--the informal initiation of newcomers to university life and the formal convocation ceremony which marks movement from the profane world of ignorance to the sacred status of bachelor, master or doctor. About initiation, one former student writes: "For about ten days, all else was overshadowed by initiation" (Johnson, 1980, p.12).

In contrast, the convocation ceremony was completed in less than a day. More importantly, however, as stated in the Invocation Prayer, the convocation ceremony "lead men into a larger life". It is a rite of passage created to commemorate the change of status in academic life--"from the profane to the sacred . . .".

Existence . . . Creation of Gods

The minutes of the Board of Governors 1919-20 calls the memorial organ placed in Convocation Hall in honour of the University men who lost their lives in World War One "the true memorial to their sacrificial death. [It] will be the permanent indwelling in the University of their spirit" (University of Alberta Archives File 68-9-240). In this passage, the Board of Governors formally acknowledges the creation of University "spirits", and welcomes them to reside at the University.

Taboos and Rules of Behaviours

The Invocation Prayer of the University of Alberta explicitly describes the rules of behaviour expected of those who belong to the University. From the rules can be inferred the taboos. The status of belonging to the University is determined by completion of a University program, that is, by graduating. Note the parts of the Invocation Prayer underlined:

> Most gracious God and Father in Whom dwelleth all fullness of light and wisdom, enlighten our minds, we beseech Thee, by Thy Holy Spirit, that we may have a true conception of Thy will. Convince us by Thy Grace that Thou hast made us toward Thyself and that our hearts will find no rest till they find rest in Thee. Be pleased to bestow Thy choicest blessing on every school of learning that strives to lead men into a larger life. Grant that the students and Professors in this University may ever study to be helpful, may cease not to be patient in the search for truth, and in the midst of doubt and difficulty to abide steadfast, undismayed. Give us grace always to employ our talents to the profit of this province, the glory of our Empire, and the advancement of Thy Kingdom. Give unto them who today go forth from this University, that no pursuit of glory, gain or wealth, that no desire for knowledge of things vain and hidden, that no envy or sloth or indifference nor any other creature may be able to separate them from whatsoever things are true and honest and just and pure. Hear us of Thy mercy through Him Who taught us when we pray to say, "our Father, Who art, etc.'

It is worthwhile examining the paroles of University creators for explicit statements about the rules of behaviour and taboos.

Light and Wisdom . . . Every School of Learning . . . Lead Men into a Larger Life. These phrases are synonyms for learning and education and international university cooperation. As the characteristics of learning and education and international university cooperation were discussed as criteria of a university as a social institution, all that was said about it in Chapter Two applies here.

Helpful, Steadfast, and Search for Truth. The expectation that students and professors would be "helpful", "steadfast" and "search for truth" indicates the qualities and characteristics of an individual valued by the University and of the University as a public institution, by the public. The "search for truth" can also be described as a scientific attitude of mind. In a letter to the Carnegie Foundation in 1923 Tory wrote:

> By a scientific attitude of mind I mean probably pretty much what you have suggested by the words, the 'medical mind', viz. such training as will give men a fixed determination to get at the exact facts of the case and such an understanding of science as will give them a mental attitude towards accuracy that will be sufficiently strong to make them not content with less than the whole truth (August 27, 1923, University of Alberta Archives File 68-9-23).

The involvement of staff and students in conducting research was an expression of their helpfulness. This was discussed in Chapter Two. How the University was a helpful local influence was also presented in Chapter Two. Other examples follow. A. E. Ottewell, President of the Students Council likened helpfulness to kindness in an article in the first edition of The Gateway in the 1911-1912 school year:

> And kindness! What a charm in the very word! How much it contributes to make life worth living! How pitiful the arrogance of the so-called educated man who with ruthless hand would snatch from those less privileged than himself the things they hold most dear, and give nothing in return! The point is well illustrated in the pages of many periodicals wherein, various learned (?) men proceed to ridicule what for ages have stood as the verities of life for millions of earnest souls, and that, too, very often by basing conclusions upon premises all too insecurely founded (The Gateway II(1), 1911-1912, p.15).

Ottewell suggests that an educated person has the responsibility to be kind or helpful to all. To him, a university education is a privelege. It is something to be valued. Values are sacred.

Within the University students and staff were expected to present the "truth" and hold to it. As such, they were to be steadfast. The belief in honesty was one expression of their steadfastness in face of truth. About honesty, Ottewell writes in the same issue of The Gateway:

> honesty, not only the sort that gives dollar for dollar, and measure for measure, but the kind which enables a man to look into the inner-most recesses of his nature and call what he finds there by its true name; the kind which makes him shrink from the very suggestion of anything which does not ring true as from the sting of the lash; that braces him to challenge, if need be, even Truth herself to the trial (original emphasis, The Gateway II(1), 1911-1912, p.15).

Ottewell's aim in this article is to underline the attributes and responsibilities of those priveleged enough to acquire a university education. Kindness, honesty, and courage are needed for the search and discovery of truth:

> Courage let us have; to honesty and truth let us hold; but let us assure ourselves first that it is the truth and not some ingenious theory which will prove to be not the bread of life but a stone, and then bear ever in mind the exhortation to speak the truth in love (The Gateway II(1), 1911-1912 p.15).

Because expected values (helpfulness and steadfastness) and behaviour (the search for truth) are clearly stated it would be expected that members of the University who break these rules would be punished. An examination of President Tory's correspondence, in fact, reveals this to be the case. A number of incidents outline this point. Evidence of the taboo on pursuing wealth was presented in Chapter Two (the case of Professor Revell). The taboo on not searching for truth is also evident.

After the war, Tory encouraged his staff to conduct research. In a letter to President Murray of the University of Saskatchewan, Tory wrote:

> I am undertaking a formal organization of our staff especially with a view to stimulating research and productive work and am encouraging that junior members at least spend part of their summers out of the Province altogether (November 4, 1920, University of Alberta Archives File 68-9-65).

In response to Dr. Tory's encouragement to conduct research and to the requests for analytic work from the public, numerous staff members appealed to the President for increased teaching assistance. They could not meet their responsibilities under present conditions, they argued. For example, in 1924 Professor Lehmann complained of the shortage of assistance in the Department of Chemistry and that as a result, research was not "done in a satisfactory manner" (letter to Tory Janurary 24, 1914, University of Alberta Archives File 68-9-79). Less than a week later, Professor Broadus of the Department of English wrote to Tory requesting a leave of absence without salary to complete two books:

> I have been particularly useful to you in this (executive work) kind of University service; but I have always put my whole soul into my teaching, and I have always given my best. One cannot do this indefinitely, in a country as far away from the intellectual centers as Alberta, without becoming stale. With our necessarily small library productive research is almost impossible, and even undergraduate teaching needs at once stimulus and the renovation afforded by investigation and research. I should like the opportunity for further study at Harvard and abroad, for the betterment of my ability as a teacher (January 30, 1914, University of Alberta Archives File 68-9-81).

Furthermore, in 1920 Broadus threatened to resign because of a lack of research opportunities. The "search for truth" and the obvious lack of time to do so was a major concern of the teaching staff. If they could not conduct research or "search for truth" they wondered why they were at a university. Conducting research was something greatly valued by staff members.

Pursuit of Glory, Gain, or Wealth. The request that "no pursuit of glory...may be able to separate them from whatsoever things are true and honest and pure" is a list of the taboos placed on the members of the University. The sacredness of these values is further evident by the fact that members of the University (teachers, staff and graduates) take a pledge during this ceremony

> ...faithfully to observe and loyally to maintain the statutes, customs, privileges, and liberties of this your University... (and)...solemnly promise to conduct yourself in all things loyally and faithfully to the honour of your Univeristy, the encouragement of learning and the good of your country (The Pledge, Convocation Ceremony, University of Alberta).

Examples of how University administration treated individuals who seemed to pursue wealth outside of the limits they set were given in Chapter Two. How individuals were rewarded for their courage to refuse glory, gain or wealth was also explained. Both of these points emphasize the sacredness of values identified by the University, the pressure to conform to them, and the consequences of not conforming.

Employ talents to the profit of this Province, the Glory of the Empire, and the Advancement of Thy Kingdom. Graduates were expected to employ their talents for the material betterment of the Province. The points made earlier about helpfulness, kindness, helpful local influence, and national ideal verify this expectation.

Because the University is a public institution it is expected to uphold the values of the public. In other words, the public believes and expects that the University will support its beliefs. Three documented incidents confirm this belief very well. The first incident occurred in 1921. Mr. Ottewell of the Department of Extension was sent on a public speaking tour throughout Alberta. Before a Calgary crowd he was quoted in the newspapers as saying:

> The theory of evolution is generally accepted by educated people of today as a sound theory. Every scientific discovery which has been made lent support to this theory and all new discoveries in biology and in other fields of science strengthened the belief of scientific men in its validity (letter to Tory from Children's Aid Department, City of Calgary, March 12, 1921, University of Alberta Archives File 68-9-170).

After reading this statement in the newspaper, a member of the Children's Aid Department, City of Calgary, wrote to Tory reminding him that "the real scholarship of the world has long since discarded the Darwinian hypothesis" and that "(o)ne would not like to think that any teaching or lecturing calculated to discredit the Bible, in the name of science, falsely so called, would have the sanction or approval of the University." This clearly indicates that a respected public institution such as the University should uphold the beliefs and values of the public, of employees of other public institutions, and "for the advancement of Thy Kingdom!". The President's response was evasive:

> [The views Mr. Ottewell] expresses are his own and do not necessarily represent the views of any other member of the University of Alberta. I take it that views of the University of Alberta would be found as complex on the matter as the views of any other group of men in a given community (University of Alberta Archives File 68-89-170).

The second incident occurred in 1923. President Tory received a letter from a provincial organization pointing out what it considered to be the misconduct of a University employee, Dr. J. H. Alexander. Dr. Alexander "claims to have broken the Alberta Liquor Act and declares his intention of continuing to do so" (University of Alberta Archives File 68-9-144). The Alberta Women's Temperance Union could not accept Dr. Alexander's disregard for the law, especially as a University employee:

> We further protest against a man holding such views being retained in a position where he can mould the thought of the young people of the Province, as we believe that such an attitude is not conducive to good citizenship but rather tends to develop the spirit of disregard of all laws . . . (University of Alberta Archives File 68-9-144).

The conduct of Dr. Alexander in this regard sparked numerous references in the local newspapers and appeals from various parts of the province. They all questioned Dr. Alexander's behaviour and attitudes because of the position he held:

> That a member of the staff of our provincial university should associate himself with the liquor trade to the extent that the moderationists did in this campaign, seems at least unhealthy, but, to openly defy the mandate of the people seems more than we should expect from our university (University of Alberta Archives File 68-9-144).

The third incident occurred in 1925. A letter from a private citizen to Dr. Tory complained "we are spending too much money in Alberta since we are educating young men who did not remain with us" (Howes to Tory, October 25, 1925, University of Alberta Archives File 68-9-144). If they did not remain in the Province, they were unable to "employ their talents to the profit of the Province". Tory responded with statistics which showed that most students remained in the province.

It can be said that these incidents are examples of public outcry against profane acts. When citizens considered the activities or words of someone associated with the University to be outside of the rules set for members of such a sacred institution, they naturally brought this to the attention of the governing powers of the University, that is, they expected something to be done about the situation. As a public institution, the University was subject to the taboos of the public. Yet, as an institution created to seek truth, it also had the right to question those taboos. Tory did a fine job of applying the most appropriate of the two to meet the needs of the situation.

Knowledge and Power

The acquisition of knowledge is symbolized in the University's colours. At its meeting October 13, 1908 the Senate adopted green and gold as the University's colours. Green symbolizes "the wide stretches of verdant prairie land flanked by the deep spruce forests of the

Province" or the land over which it would exercise "local influence". Gold "prefigures the golden harvest fields that are Alberta's boast". The minutes also record that green is a symbol of "hope, of joyous optimism" and gold of "the shining light of knowledge".

During Tory's presidency, students, staff, and leaders believed that the purpose of education was the acquisition of knowledge. Through knowledge some also believed that power could be attained: the university is a place where "real knowledge is attained at last, and this means power--power over the world, whose secrets are at last discovered" (Alexander, 1933, p.38). In this passage Professor Alexander probably described power in a personal sense. As an institution, however, the University also sought power. In an address to the provincial Pharmaceutical Association, on February 8, 1916, Acting President Kerr boasts of the power, or control, attained by the University:

> The control of practically all other forms of professional education in Alberta has already been vested by the Legislative Assembly in the Provincial University . . . Nowhere on this continent has professional education been brought so completely under State regulation as in Alberta (University of Alberta Archives File 68-9-179).

This passage proves that the University both sought and attained power.

Perfection

To seek truth is to aim at perfection. Perfection is the highest degree of excellence. The many research projects conducted at the University were directed toward discovering truth. The discussion in Chapter Two and earlier in this chapter revealed the importance of research work to professors, students, the public, and the state. It also presented examples of the attainment of excellence as it was considered by the University (for example, Collip's contribution to the discovery of insulin).

No better example illustrates that one has achieved excellence than the formal acknowledgement from one's peers or superiors. In 1923 the Carnegie Foundation evaluated the University of Alberta. The evaluation was routine for any body that had received a grant from them. They described the work of the University as follows:

> The high quality of the men we met in your university, the excellence of the work done by them, and the exceptional nature of your opportunity to serve Western Canada, especially have made an outstanding impression (letter to Tory from Carnegie Foundation, August 11, 1923, University of Alberta Archives File 68-9-23).

From that report, the University appears to be conducting its business in an outstanding manner. In the same year, Tory noted that a number of American medical schools had inquired about the research possibilities at the University of Alberta. He concluded that the increased number of requests was due to the developing reputation of the University. In 1924 the annual report of the American College of Surgeons described the University of Alberta hospital as "the best hospital west of Toronto" (University of Alberta Archives File 68-9-167). This label is also a sign of excellence.

Permanence

"Permanence" and "durability" were characteristics of a university as an institution and architectural concept. A number of examples were provided in Chapter Two as evidence that the creators of the University of Alberta explicitly believed that the University should be permanent and durable.

High Locations

Relative to the uneducated nature dominated world outside the University, one of its former students uses the University's location as a symbol for the sacredness of the University:

> In his acclaimed memoir, the Ante-Room (1959), Lovat Dickson (former student at the University of Alberta) writes that "there was something symbolic . . . in the very site where the university stood, high on bluffs above the swift-flowing North Saskatchewan River, it bore to the untidy straggling town (across the river) the eminence and remoteness that the acropolis bears to Athens" (Edmonton Journal, December 24, 1982, Section C).

There can be little argument that in a historical and contemporary sense, Athenians and the Greek people regard the acropolis as sacred. Since the University of Alberta is likened to the acropolis, this passage confirms both that the University had a "high location" relative to its surroundings, and that it was considered sacred.

Central Locations

Eliade stated that the sacred was located in the centre. Sitwell argued that artefacts of the cultural landscape which were centrally located were of central importance to the society which created it. The centre is then a metaphor for both the sacred and the important, and therefore, the sacred and the important can be considered synonyms. During the first three decades of this century government and business were of central importance to society in Alberta. All public literature about the University explicitly stressed the fact that the University was located across the river from the Legislative Buildings and near the central business district. By associating itself with important places the University gave the public the impression that it was as important as business and government. Indeed, it believed itself to be!

Claval notes that, psychologically, it is not so much the exact geographical location of one space in relation to another which identifies distance (or centrality), but the attitudes and values behind the perception of that location:

> un village nuer peut etre equidistant de deux autres villages, mais si l'un de ces derniers appartient a une tribu differente et l'autre a la meme tribu, l'une des deux distances sera structuralement plus longue . . . Quand nous passons des valeurs territoriales aux lignages et aux classes d'age, les conditions du milieu determinent encore moins l'espace structural (1971, p.116).

In order to explore the University's relationship with the outside world, the antinomies culture/nature, and male/female will be examined.

Culture/Nature. Leach considers the sacred/profane antinomy metaphorically equivalent to the culture/nature antinomy (1976, p.72) and Tuan uses the antinomy "wilderness-paradise" to mean nature-culture (1971, p.188). In Topophilia (1974), he offers the University as an example of paradise (p.144) or culture. Thus, it seems that both culture/nature and wilderness/paradise are, in fact, metaphors of sacred. It is evident from Nobbs' statements on page 119 of this thesis that Nobbs is also in agreement with Leach and Tuan.

The following three examples provide evidence that the society which created the University considered it the centre of culture relative to the outside world. First, one of the explicitly stated social functions of the University as an institution is to spread culture. Through its Department of Extension the University brings culture (knowledge, refinement, the "good life") to the wilderness which surrounds it. In the letter to the General Manager of Canadian Northern Railways already cited Tory explicitly stated that the aim of the

Department of Extension" is to improve living conditions through the Province by improving the service which the University can give" (November 5, 1914, University of Alberta Archives File 68-9-189). Paraphrased, he states that the University and its services will bring improved living conditions to the Province or, that it will bring sacred values and beliefs to the culture-starved profane wilderness of Alberta. In 1923 Mr. Ottewell and Mr. Corbett of the Department of Extension travelled 750,000 miles bringing culture to Albertans (University of Alberta Archives File 68-9-186).

Second, MacDonald, author of a book about the University on the occasion of its fiftieth anniversary, also considered the University a centre of culture surrounded by wilderness:

> Surrounding (the University) all like a great outer circle is Edmonton itself. As he takes in the scene, he has a distinctly exhilarating feeling that for the next few years he is going to be a member of a well-established, many-sided, important institution and a citizen of no mean city (1958, p.2).

Clearly, this is the view of a first year student. It is the view of an outsider invited in. To that outsider, the University is an important centre, hence, it occupies a central location in his personal mental map.

Third, the university can be shown to be synonomous with culture in the way it treated those who were destined to return to the wilderness--its farmers. After all, "Did not words "pagan" and "heathen" once mean those who live remote from the cities? and a boor was once the same as a farmer" (Jackson, 1951, 1(1), p.2). Students studying to be farmers, to work in the wilderness, in nature, and the study of that part of nature called agriculture occupied a less than equal status in the institution devoted to culture in the early years. Four examples of the low status accorded the study of agriculture and students of agriculture can be presented as evidence of this contention.

First, in the early years all subjects taught at the University belonged to faculties, except subjects in agriculture. They belonged to a College. While the college had the lowest academic rank at the University, it was a first step in raising the study and pursuit of agriculture in the society of that time. It was also a rank above the Schools of Agriculture that were located throughout the Province. They "were primarily intended for and their proper function is to deal with those young people who have not had the privelege of an early education, and for those who intend to make practical farming their life calling" (petition from University of Alberta Agricultural Students to the University of Alberta President, April 8, 1921, University of Alberta Archives File 68-9-95).

Second, for ten years students of agriculture received a certificate which had no worth at any other university on the continent. It took a decade of discussion to change the status of the College to that of a Faculty so that students could graduate with a recognized degree. The change also allowed students with "matriculation" standing to enter directly to the University like students of other faculties with "matriculation" standing.

Third, students in the College of Agriculture were also treated as lower class students. They were not fully integrated into campus life and this was noted by both students and faculty. In order to enable agriculture students to assist in the fall harvest, classes in agricultural subjects began one month after classes in all other departments. Thus,

> the social, literary and athletic organizations are complete and in operation when the Agricultural student enters. The

> receptions have also taken place. Opportunity of participating is therefore almost entirely out of the question and the adjustment is necessarily much harder to the social life of the University. The Agricultural student therefore is placed in a rather difficult position. The significance of this is readily apparent from the common knowledge that the value of the training due to the intercourse with other students is of inestimable importance (petition from University of Alberta Agricultural Students to the University of Alberta President, April 8, 1921, University of Alberta Archives File 68-9-95).

Furthermore, agriculture students who took courses in other faculties were expected to make up for the late start and given no credit for the extra time required to do so. The lower status accorded agricultural students was apparently a Prairie phenomenon for the Dean of Agriculture of the University of Manitoba made the same observations about their treatment on his campus (University of Alberta Archives File 68-9-95).

Finally, students of agriculture were the only students exempt of tuition fees. Professors of agriculture received a salary based on the same salary scale as other professors at the University but students of agriculture, were exempt. In return for their "free" education agricultural students earned a certificate that was not recognized by any post-secondary institution and were excluded from the Convocation ceremony. Since agriculture students began classes after the informal initiation ceremonies had taken place, they never really passed through either rite of passage. If agriculture can be considered a part of nature, then examples of how students of agriculture were mistreated at the University shows that in its early years, the University had difficulty accepting the study of nature and those that studied it into their culture-oriented domain. The University considered itself an institution devoted to culture; not nature.

Male/Female. When Levi-Strauss described Omarakana by means of binary oppositions, he included the oppositions male/female and celibate/married. Information found in the Tory Papers suggests that an examination of these two oppositions reveals the nature of the relationship between the University and the outside world. For example, there are explicitly stated excerpts from correspondence of the powers that be that "women require a building planned somewhat differently from the three dormitories which we already possess" (letter from Acting President Kerr to Hon. Horace Harvey, January 31, 1919, University of Alberta Archives File 68-9-2). The facts that there were more residences planned (6 to 1), proposed (3 to 1) and built (3 to 0) for men than women; that as late as 1919 no permanent home for female students was provided at a campus where "by resolution of the Senate all non-Edmonton students are compelled to live in residence" (letter from Acting President Kerr to Hon. Horace Harvey, January 31, 1919, University of Alberta Archives File 68-9-2); and that during the second reading of the University Act one of the M.L.A.'s discussed the role of women as follows:

> Sweet girl graduates, May there be many of them . . . The hand that rocks the cradle rules the world, and I hope that the hand will not rock the cradle any less deftly on account of having received a university training (John T. Moore as recorded in Edmonton Bulletin, April 23, 1906)

suggest that the University was intended primarily for men. Furthermore, there were no females in positions of decision-making and women were not yet given the vote. The fact that the University residences were designed for single students only, primarily men, suggests that it was also a world for single people. In contrast, as in Omarakana, the sacred centre was surrounded by houses for married couples and their children.

EVIDENCE OF THE SACRED IN THE PHYSICAL PLANT OF THE UNIVERSITY OF ALBERTA

The consistency of the notions of sacred found in langue and parole implies that the notions of langue were firmly in place in the minds of the creators of the University of Alberta. Thus, they can be considered signifieds of the semiotic triangle. If, as was discussed in Chapter Two, the signified has transformed itself into a signifier (parole), then it seems reasonable that it could also transform itself into a denotatum. This section of the chapter will examine the physical plant of the University for evidence of the sacred. The same criteria which identified sacred in langue and parole or signified and signifier will be used.

Religion and Supernatural

The original and revised plans of the University of Alberta included a Chapel. A chapel is a metaphor of religion in the cultural landscape. In the explicit beliefs of the University's creators, the spirits of the university (or supernatural) were invited to live in Convocation Hall. The Convocation Hall was located next to the proposed Chapel along the river bank. Since Nobbs considered the river bank one of the main facades of the University and positioned the Chapel and Convocation Hall in this facade, it can be argued that he felt that religion played a main role in the life of the University. He used relative location to express the importance of religion in the cultural landscape. In the physical plant as built, both Convocation Hall and the Chapel found their place in the Arts Building. Their place was one and the same. Thus, the campus was designed to be and became a home for religion and the supernatural.

Rites of Passage

Johnson's (1980) article about initiation states that initiation activities took place all across campus and outside the University. Since the University served the city (and Province), spaces on and off campus could be considered places where students in their first year were subjected to fun and torture by students in second, third, and fourth year courses. The formal and more important rite of passage occurred at the end of one's studies. Graduation took place in Convocation Hall. This rite of passage occurred in a special and sacred place throughout Tory's presidency. The further importance of Convocation Hall will be discussed later in this chapter.

Existence . . . Creation of Gods, and Perfection

This criterion of the sacred is very similar to the characteristic of religion and the supernatural. Thus, all that was said about the physical plant embodying those characteristics applies here. Some have also aruged that the creation of Gods is a means of bringing perfection to a culture or society. In Chapter Two the University was described as a planned landscape and a planned Landscape was likened to a cosmogony. As such, it was designed to represent the perfect. The landscape or cosmogony of the University of Alberta was based on the grid plan. This spatial organization was also shown to symbolize perfection. Since perfection is also a characteristic of the sacred, the grid plan could be considered a metaphor of the sacred as well.

Taboos and Rules of Behaviour

It is safe to say that the majority of students and staff of the

University in its early years resided on campus. The campus was clearly delineated from the city which surrounds it by roads and landscaping (Figure X). As such, taboos and rules of behaviour subjected to University members could be more easily enforced. Furthermore, the boundaries allowed students and staff to behave in one way on campus and another way off campus, as appropriate.

One of the rules of behaviour previously mentioned regarded the taboo on acquiring wealth. The University was designed not to look like an institution which acquires material wealth or profit in any way. In 1919 Nobbs wrote:

> I spent Saturday in Toronto at Hart House, a very lovely building with a gym half the size it should be and miles of corridor. Delightful as the place is I fear its influence will not be altogether for good. A millionaire's club is not the atmosphere for a college (letter from Nobbs to Tory, October 9, 1919, University of Alberta Archives File 68-9-29).

Knowledge and Power

In Chapter Two a sculpture proposed by Nobbs to symbolize knowledge and education was described. The possibility that the University in itself is a metaphor for knowledge and learning might also be proposed. Either way, knowledge was designed to have its place in the physical plant of the University, visible from within and to those in the outside world.

We usually consider people and things of large or enormous build powerful. Thus, in Lovat Dickson's eloquent description of the location of the University relative to the City of Edmonton, the University had a "powerful" appearance. Power and other attributes of the sacred can also be associated with the building materials used for the University: stone has a mystical value in a number of cultures (Eliade, 1963, p.216-238) and

> in all parts of the world primitive peoples have set up stones . . . in connection with religious rites. Anaxagoras mentions a stone that fell from JUPITER in Thrace, a description of which is given by Pliny . . . The stone at Emessa, in Syria, (was) worshipped as a symbol of the sun (Evans, p.1072).

Nobbs identified stone as the building material which would differentiate the University from the surrounding city. Metaphors of "brick" and "stone" in language also illustrate that stone is more sacred than brick. A "regular brick", for example, "is a jolly good fellow; perhaps because a brick is solid, four-square, plain and reliable" (Evans, 1981, p.158). The plain is not sacred. "To drop a brick" is to make a highly tactless remark--usually one which is not forgotten. The sacred does not make mistakes. The expressions "stone blind", "stone cold", "stone dead", "stone deaf", "stone still", on the other hand, all imply a "permanent" state. Permanence is a quality of the sacred. According to one legend, Noah was commanded to hang up the true "philosopher's stone" in the ark, to give light to every living creature therein. Light is a symbol of knowledge, and knowledge is sacred. "Precious stones" or gems were held to have magical and curative powers. Such powers--of preventing quarrels, assuring a fertile crop, protecting someone in an accident from injury--rest upon a belief in the ideal or perfect. Perfection is a quality of the sacred. A touchstone is a criterion or standard, which also implies some level of perfection. The "Stone of Scone" was the great coronation stone on which the Scottish kings were crowned. It was a symbol of power, and power is sacred. The religious and mystic values of "stone" suggest that it is a sacred building material.

High Locations

The sacred is associated with things that are high. In Chapter Two, the towers and turrets proposed by Nobbs in every draft of plans for the University of Alberta were considered expressions of height, and height was considered a metaphor of what was valued by landscape creators. If what is high is both important and sacred, then what is high at the University must be both important and sacred. The University was seen to occupy a high position in the city. Relative to the outside world, it was considered both important and sacred. From within, the buildings with proposed towers were the Provincial Library, Museum, Administration Building and Medical Building (Figure VII). This suggests that the sacred was associated with government, life and death, and the past. The Convocation Hall proposed by Nobbs was the highest building designed without a tower. This suggests that all that was associated with Convocation Hall, including religion, education, and knowledge, was sacred.

Central Locations

The discussion about the relationship of the University to the outside world revealed that the University occupied a central location in the city of Edmonton both geographically and psychologically. Since the binary oppositions centre/periphery, culture/nature, and male/female align themselves as stated, and since culture/nature is synonomous with sacred/profane, all of the spaces which were devoted to culture and males and located in the centre were also sacred. Thus, the University is sacred space relative to its surroundings.

Within the University of Alberta, some of its spaces may be considered more "sacred" than others. Eliade noted that the centre is sacred. By identifying the centre of the University it may be possible to identify sacred space within the University. This, however, is not an easy task. The University from the inside is unlike Levi-Strauss' Omarakana, which had a distinct physical centre and periphery, and to which a number of social characteristics readily aligned themselves. In fact, there is no precedent for this analysis. Most investigations of the sacred and/or the centre are conducted from an outsider's perspective. The question, therefore, is does the University of Alberta have a centre? and if so, where?

Tuan often compares landscapes to the human anatomy; hence, an examination of the centre of the human body may assist in identifying the centre of the University. Is the body's centre the naval without which we could not have survived as a fetus nor be born; the heart, without which our physical functions would stop, and when whose functioning ceases we are declared "dead"; or the brain, the loss of whose functions leads us to be called "vegetables"? The analogy shows that there are infact, a number of ways of defining centre.

Similarly, there are a number of ways of locating or determining the centre of the University--the place most used, most used most often, most used at specific given times; the place most frequented; the place housing the most important people, the decision-makers; the place where most of the money is invested; the place where the most important events occur; or the place where all that is sacred is re-enacted or stored, the sacred being representative of what is central to the value system of the University. Now we are back at the beginning!!

The place most frequented on campus would probably be the library and there are numerous references to it being a place of central importance in the Tory Papers. The place most frequented outside of the classroom/teaching complex, would probably be some place in the student residence, perhaps the central dining room. As the following quotes suggest, a case supporting the dining room as a centre on campus could also be built:

> The Dining Hall has made it possible to conduct not only the residential part of the University in a suitable manner but has made it possible to conduct our social functions in a manner worthy of the University. Therefore, the University is to be congratulated on having this excellent accomodation for physical culture at this early stage of its career. Perhaps no part of the University equipment has been more keenly appreciated by the student body" (Report of the Board of Governors 1914, p.2).
>
> From the very beginning the scheme of residence and dining hall was designed to be a part of the Educational work of the University. If you had been an observer of the change that has taken place in the attitude of the students in the last five years since the dining hall was built, you would understand exactly what I mean. There is no part of our work that has given me so much gratification, as the social improvement among the students, due to the fact that the dining hall was there as a great social centre, as well as a place to supply food. In order to secure this Educational result, it is absolutely necessary that the dining hall and residence system be run on a higher plane than an ordinary boarding house. . . . our hall is infinitely more than a mere dining hall. If it were a question of making money, then we should have started off as in many of the American places with a Cafeteria instead of a well organized and well equipped dining room, and that was the judgment expressed at the beginning by certain members as to what should be done (University of Alberta Archives File 68-9-1).

The place housing the most important persons would be the Administraton Building or administrative portion of a building if the most important people are considered to be the decision-makers. Nobbs considered the President's office and Board Room "not ordinary types of places" (letter from Nobbs to Tory, October 1, 1915, University of Alberta Archives File 68-9-29). However, the most important people could also be the professors, who are purveyors of knowledge, which is held sacred at the University. Then, their offices, laboratories and on-campus residences would be of central importance.

The place where the most money was invested might be considered of central importance to an administration which highly valued stretching the dollar! Simple mathematics could show how money was distributed at the University per faculty; per student per faculty; or from internal vs. external sources. On the other hand, the registrar sees and exchanges the greatest amount of money. As such that office could be considered of central importance.

The centre might also be considered the place with the greatest dollar investment. The library, then, with its large dollar investment in books and other written documents could return to the centre. On the other hand, the largest investment of private funds, especially from large foundations, was placed in university research, especially medical research. Then, the hospital or Medical Building would be considered the centre of the University. Nobbs certainly considered this building important and proposed a spiral serpent be placed on top of its cupola: ". . . there is good scriptural authority for the efficacy of raising a brazen serpent in the wilderness" (Nobbs to Tory, March 2, 1921, University of Alberta Archives File 68-9-29).

The answer to the question about the University having a centre would have to be "yes". To identify that centre according to the questions asked above would be an exceedingly difficult, if not impossible, task. For the purpose of this thesis, we shall turn to the parole of the original designer of the University to help us identify what he considered the centre of the University. Nobbs made the statement explicit. In a letter to Tory he wrote:

> The eastern side of the University lot faces, as has been pointed out, a street which will become important as a driveway and here a wide, but not very deep, courtyard treatment suggests itself to me, with either the Medical Building, the Library, or possibly the Convocation Hall, as a central feature (October 18, 1918, University of Alberta Archives File 68-9-29).

Of the three features identified, further analysis shows that Convocation Hall best fits the definition of sacred given by Tuan, Eliade, Malinowski, and Leach. In the original revised plans of the University (Figures VII and VIII) Convocation Hall was clearly set apart from the residential and teaching sections of the campus. It was "at the edge". In the words of Wagg:

> This great space (the quadrangle) was to be terminated at the river bluff by a monumental convocation hall that would be clearly visible from the opposite bank. Although never built, this structure was intended to act as a dominant mass linking the whole scheme together (Wagg, 1982, p.49).

Furthermore, it is in Convocation Hall that the student passes from the profane world of ignorance to the sacred world of "master" or "doctor" and where those who are already sacred, having already convocated, are reminded of their rite of passage. The ceremony (see Apendix A) commemorating this rite is traditional, held annually, and strictly adhered to in events and order. It also has a christian religious component. It is an event of "overpowering significance", at least for those involved.

Parts of the Convocation also contain symbols of the sacred. The order of the Procession, for example, indicates a hierarchy with respect to decision-making power. The first to proceed have the least power - former graduates of B.A., B. Sc. in Arts, B. Sc., M.D., LL.B., M.A., M. Sc,. followed by members of the convocation, staffs, principals and presidents of affiliated institutions, university staff in order of their rank, from lowest to highest, the Senate, Board of Governors, honoured guests who are about to receive honoured degrees, Ministers of the Crown, Vice-Chancellor and Minister of Education, President and Prime Minister, and Chancellor and Visitor. The Procession is clearly an event which "creates order".

Guests attending the ceremony remain standing during the Procession and until the Chancellor is seated. The act of standing is a sign of respect. We stand when we sing our national anthem. We stand when we salute a performance (standing ovation). We stand as a judiciary court is brought to order. "To stand up for something" is to uphold or support it. "To stand by one's word" is to be trustworthy and reliable. A "person of standing" is someone respected. "Standing orders" are ones always in force.

Things or people that are respected or which symbolize power, importance, or the divine can be said to be sacred. This is evident in that certain behaviour toward these things or people is considered inappropriate and unacceptable. Anyone who is able to stand, but does not, when the national anthem is played or sung is frowned upon. The fact that the University Convocation ceremony requires participants and invited observers to stand shows that the event is to be highly respected. It also specifies expected rules of behaviour and taboos.

Another part of the convocation ceremony is the Invocation. It consists of a prayer especially written for the event. Since the prayer ends with the recitation of the christian prayer "our Father" it can be said that the Invocation has a religious component. It has already been established that things associated with religion are sacred.

"What is sacred is not only dangerous, but in apparent paradox, the sacred itself is also capable of being threatened by the impious approach of non-believers" (Sitwell, 1979, p.437). Attendance at the Convocation is restricted to members of the University, convocating members and their families. It is not entirely a public event because not just anyone can attend. This prevents the attendance of "non-believers".

It was also asserted earlier that Convocation Hall housed the spirits of the University. In honour of University members who gave their lives in World War One, the University had the names of these members carved on an organ and the organ placed in Convocation Hall. This act is symbolic of identifying the place where life and death or the present life and the future life meet. Furthermore, Convocation Hall stood for the formal acknowledgement of the attainment of knowledge and of searching for truth or perfection. It also occupied a highly visible and central location.

The argument just presented suggests that Convocation Hall was a sacred place, perhaps the most sacred place on campus when viewed from the inside. Since the only insitution that has a Convocation Hall is the University, Convocation Hall is also a metonymy for the University. As such, the profane world is identified as both that which exists on campus outside Convocation Hall and outside of the University. As was also discussed, there may be other spaces considered sacred on campus.

CHAPTER FOUR

CONCLUSION

The conclusion of this thesis is designed to summarize the major findings in Chapters Two and Three, to review the proposed methodology, and to present a number of areas for further research. The first summary to be presented discusses the consistency of explicit and functional beliefs about the University of Alberta as an institution, architectural concept, and sacred space. The second summary presents the metaphors found in the cultural landscape known as the University of Alberta. The questions raised by this thesis will be dealt with in the review of methodology.

EXPLICIT AND FUNCTIONAL BELIEFS

In Chapters Two and Three the paroles of the major contributors to the development of the University of Alberta as an institution and physical plant were shown to be consistent with the notion of a university as an institution and architectural concept as identified in the relevant langue. Then, the physical plant and its plans were examined for evidence of these same features. The paroles of the President, Building Committee, architect, staff, students, and public can be said to represent the explicit beliefs of landscape creators. The physical plant, on the other hand, is evidence of what was done. As such, it is the transformation of a functional belief.

When comparing langue and parole, the plans for the University of Alberta were examined and were found to contain evidence that the explicit and functional beliefs of the landscape creators were consistent when evidence in the actual physical plant as built did not. Moreover, the evidence in the plans suggests a greater degree of consistency between the explicit and functional beliefs of the architect Nobbs than between those of President Tory and the Building Committee. This section of the chapter will examine the consistency of explicit and functional beliefs, and when the two are inconsistent, postulate reasons for the inconsistency.

Learning and Education

While Nobbs proposed a carving for the Arts Building which symbolized "a body devoted to learning and education", that carving never came to be. This event suggests two things. First, because the rejection of this carving was based on a lack of funds, money appears to be valued more than the symbolism of education. Second, it suggests that there may be some other visible feature in the landscape which replaced the symbolism of the proposed carving. It might be postulated that the duty of being devoted to learning and education was evident enough in the creation of an institution such as the university that no other symbolism was required, that is, the university is itself a metaphor for learning and education. If so, the explicit and functional beliefs were consistent.

Helpful Local Influence.

Increased elevation and the use of brick and stone were used as metaphors for "a helpful local influence". While Nobbs proposed a number of different towers and turrets atop buildings, neither the towers nor the buildings ever came to be. Nobbs' proposed use of height to mark off the University as an important institution was replaced by the height created through increased elevation of the main teaching building. All of the members of the building committee, including Tory and Nobbs, agreed to use brick and stone, with increased use of stone on the more important buildings, to distinguish the University as an important institution. In that the grid pattern embodies "greatness and dignity", the plan of the University can also be considered a symbol of the fact that the University was important to the society that created it. Thus, with respect to the notion that the University was an important local influence, it appears that explicit and functional beliefs were consistent.

National Ideal

The fact that the University is an institution devoted to the "national ideal" was expressed by its relative location to the Legislative Buildings, the inclusion of a State Library and Museum in the plans of the University, and by the symbolism of the grid. While the relative location of the University to the Legislative Building did not change, the proposed State Library and Museum were never built. Does this mean that the national ideal was symbolized in some other way in the visible landscape? The Canadian flag atop the main building is one example of a visible symbol of nationalism. More subtlely, the grid pattern and the sense of sacredness of the University as opposed to its surroundings can be considered metaphors for the national ideal. The grid pattern symbolizes regularity and order. The aim of a national government is to create and maintain regularity and order. The sacred was considered ordered, whole, and endowed with power. The national ideal was also something endowed with power and, as has already been stated, designed to create order. Thus, the fact that the physical plant of the University embodied symbols of government, wholeness, order, and power suggests that the functional beliefs of the University's creators were consistent with their explicit ones.

Conservative and International Cooperation

The conservative nature of the University as an institution was expressed by the selection of an architectural style which was not vogue at the time, but in fact "classical". Something that is classical is conservative. Thus, this particular architectural style can be considered a metaphor for something that is conservative. The elastic-free classical style of architecture was also considered a symbol of international cooperation. Because the style of buildings built during the period examined by this thesis remained that of the elastic-free classic style, the explicit beliefs in conservatism and international university cooperation were consistent with the functional beliefs expressed through this style.

Mental Activities of an Unprofitable Kind

The notion that the University was an institution devoted to mental activities of an unprofitable kind was expressed in Nobbs' plan by a proposed clock tower. That tower was never built, again, because funding did not permit. What, if anything, replaced this symbol is more difficult to propose. Hence, here is an example of an inconsistency between explicit and functional beliefs which cannot, as yet, be accounted for.

Harmony. The harmony of university architecture was expressed through the harmony of the grid plan and the facts that one architectural style and the same building materials (produced by the same companies) were used for all buildings erected during the period of this study. Again, explicit and functional beliefs were consistent.

Permits expansion and Permanence

A landscape which permits expansion is equivalent to a permanent landscape. The grid plan on which the University was based allowed for continuous expansion. The use of durable building materials such as brick and stone was designed to ensure that the University gave the appearance of a permanent feature of the cultural landscape. The fact that it was considered sacred ground also gave it permanence. Leach called the sacred timeless. The timeless is permanent. Explicit and functional beliefs about permanence were consistent.

Sacred

Evidence from the paroles of the creators of the University of Alberta (letters, newspaper articles, prayers, ceremonies, and vows) supported the contention that the University was considered sacred space according to the criteria of sacred presented. The landscape of the University of Alberta could be considered sacred because it was perceived by students (Lovat Dickson) and staff as having a high and central location in the city. The fact that the University was based on a premeditated plan places it in the same category of landscape as other sacred places, such as ancient cities, palaces, or places of worship. The historical symbolism of the grid plan on which it was based suggests that the grid embodied sacred elements. A case can also be made for the sacred qualities of stone as a building material. Furthermore, the criteria of sacred were also shown to be very similar to the criteria of a university as an institution and architectural concept. Thus, explicit and functional beliefs about the University as a sacred place were consistent.

METAPHORS

The identification and examination of metaphors in the cultural landscape have been a major focus of this thesis. Richards (1965) provides a useful breakdown of metaphor which may be of assistance in summarizing the findings of this thesis. He calls the message of the metaphor the tenor and the means by which the metaphor is expressed the vehicle. In the example, "Diamonds are forever!", the tenor is "love" or "an everlasting relationship through matrimony". The vehicle is the diamond. J. David Sapir claims that the metaphor has three basic parts, "two terms from separate domains plus the bundle of shared features" (1977, p.6). He calls the tenor the departure, the vehicle the arrival, and introduces the intermediary to show the characteristics common to both departure and arrival. Figures XI and XII summarize the findings about metaphors in the cultural landscape according to the models of Richards and Sapir respectively. Figure XI focuses on the different meanings attached to items of the cultural landscape such as building materials, grid plan, height, central location, and architectural style. Figure XII starts with the tenors and then examines the vehicles according to each tenor. These figures are offered as a possible means of developing a classification system for elements of the cultural landscape. A refinement of this idea merits a thesis in itself.

This thesis focused on six basic metaphors. More vehicles and more tenors to the existing vehicles could be added. The common characteristics of tenors and vehicles could also be elaborated. While the thesis confirms Sitwell's assertion that metaphors of height, durability, and central location exist in the cultural landscape, there is a need to identify other possible metaphors. Some possibilities

FIGURE XI

Metaphors in the Cultural Landscape (Based on Richards)

Vehicle	Tenor
example: DIAMONDS (Diamonds are forever!)	-an everlasting relationship through matrimony.
BRICK	-permanence of an institution in society -architectural harmony -the common, plain, everyday values
STONE	-permanence of an institution in society -architectural harmony -monumental (importance) -sacred space
GRID	-order, regularity -power (government) -greatness and dignity -regularity -the premeditated, a plan -continuous expansion -permanence -sacred space -conservatism
HEIGHT	-power (government) and control -monumental (importance) -sacred space
CENTRAL LOCATION	-power and control -monumental (importance) -sacred space -permanence
ARCHITECTURAL STYLE (elastic-free classic style)	-international cooperation -conservatism

FIGURE XII

Metaphors in the Cultural Landscape (Based on Sapir)

Departure	Intermediary	Arrival
example: matrimony	-everlasting, cannot break -brilliance, rare or hard to find (a partner and a diamond)	DIAMONDS
PERMANENT INSTITUTION	-long lasting -conservative	BRICK
	-ever-lasting, -strong -hard to break, alter or change	STONE
	-can constantly grow without alteration of essential part	GRID
	-last to be destroyed -pivot point of other activities -major relationship to other things	CENTRAL LOCATION
MONUMENTAL (IMPORTANCE)	-difficult to change -powerful -strong, -everlasting	STONE
	-visible from great distances -to be seen by many	HEIGHT
	-meant as a reminder -passed by many people	CENTRAL LOCATION
	-classic -never goes out of style	ARCHITECTURAL STYLE
NATIONAL IDEAL (POWER)	-strong, -heavy, -hard to move/change	STONE
	-permanence -controlled -order and regularity	GRID

	-constantly visible -seen by many	HEIGHT
	-controlled -major relation to other things	CENTRAL LOCATION
SACRED	-permanent (timeless) -larger than human size	STONE
	-order and regularity -permanent -controlled	GRID
	-control -larger than human size -in the direction of the heavens	HEIGHT
	-meant as a reminder -pivotal relationship with all things	CENTRAL LOCATION
HELPFUL LOCAL INFLUENCE	-durable, reliable -changes only slightly over time	BRICK
	-permanent (timeless), reliable -strong -powerful	STONE
	-control -larger than human size -visible reminder to all -successful	HEIGHT
	-meant as a reminder -pivotal relationship with all things	CENTRAL LOCATION
INTERNATIONAL COOPERATION	-never out of style -understood and visible all over the world	ELASTIC-FREE CLASSIC STYLE OF ARCHITECTURE

might be found in examinations of the meaning and symbolism of other architectural styles, other basic plans of spatial organization, and other cosmogonies. A knowledge of architectural symbolism seems almost a necessity.

METHODOLOGY

The methodology proposed and applied in this thesis proved to be useful in examining its subject matter. Explicit and functional beliefs could be readily identified because the University of Alberta Archives has detailed and ordered files about its history and because the physical plant of the University was the product of a trained and experienced architect and of a Building Committee which kept modest accounts of its business. Not every cultural landscape will have such readily available information from which evidence of explicit beliefs can be drawn.

The langue and parole model was easier to apply to the concepts of a university as an institution and an architectural concept than to the notion of sacred. In the former case, criteria were explicitly stated in a repository of society's knowledge about itself--the encyclopedia. In the latter a composite of criteria had to be inferred from studies conducted by other researchers. As a result, it must be said that the sacred merits examination in a variety of disciplines.

The semiotic triangle was presented as a concept which provides a framework for examining the relationship of explicit and functional beliefs. It is hoped that terminology which at first may have seemed somewhat cumbersome proved useful. With more research the premise that signifieds are transformed into signifiers and denotata may be more readily accepted. Then, other transformed denotata, such as art, legends, implements, dress, etc. may be used as evidence of functional beliefs. In some analyses of the cultural landscape it may be possible to draw evidence from a variety of denotata to show consistency of a functional belief in the absence of an explicit one. By this means, it may also be possible to infer an explicit belief.

In order to interpret the consistency of explicit and functional beliefs one must first look for metaphors in the cultural landscape and fully understand the symbolism implied. In order to do this, an examination of language, especially of the language of the time and culture of the people who created the landscape, is compulsory. Thus, if the landscape was created by non-English speakers, even if it was in a dominantly English-speaking country, a knowledge of the language and symbols of the former culture (and perhaps both cultures) would be imperative. The analysis of binary oppositions proved to be a fruitful means of filing or organizing pieces of evidence about explicit beliefs of the creators of a particular landscape. As such, it also provided direction for the exploration of functional beliefs in a particular landscape.

The alignment of the sacred/profane antinomy with other binary oppositions allows us to identify values and beliefs that the creators of the University considered to be important. In order to identify sacred/profane space it was necessary to examine antinomies such as culture/nature, paradise/wilderness, centre/periphery, celibate/married, and male/female.

At the beginning of Chapter Three it was stated that the sacred/profane antinomy is primary and that to it all others align themselves:

sacred	profane
culture	nature
paradise	wilderness
male	female
celibate	married
centre	periphery

While there was no explicit evidence to suggest otherwise, it is freely admitted that the subject of sacred space merits considerable more attention before any definitive conclusions can be drawn. Furthermore, the binary oppositions examined in this thesis were all ones previously identified by geographers. It is still unclear how one could become more adept at identifying and sequencing, if necessary, other oppositions.

The argument about location of the centre of the University still has a few loose ends. While the plans for Convocation Hall fit most of the criteria of the sacred, its actual site falls short. It seems that the notion of multiple centres best fits the description of the campus. The concept of multiple centres in the landscape could also be further examined. In so doing, it might be postulated that each centre symbollizes a fundamental need, for example, physical, social, or emotional.

This thesis has suggested a means of accounting for values, beliefs, and ideas, that is, mental phenomena, when undertaking an analysis of the cultural landscape. Mental phenomena appear easier to identify from a distance, either in time, space, or culture. Thus, attitudes and values of the University at the turn of the century seem more clearly recognizable to me than those of contemporary society. Application of the procedure used in this thesis to a contemporary landscape would be undoubtedly more complex. The identification of other models of semiotic triangle, a more complex means of tying together the notions of semiotic triangles over time, and more research into the functioning of the brain, the relationship of language and cognitive functioning, semiotics or sign/symbol systems, the nature of human communication, and metaphors are also required. Geographers could benefit from both borrowing from existing research and contributing to it.

Models from other disciplines, especially those which explore the relationship of mind and communication, may assist geographers in developing a classification system, or systems, for the analysis of the cultural landscape. For example, evidence from other cultures could be amassed to concur with or eliminate the possibility that building materials used to construct the homes of the upper class in any society are consistently of a more durable nature than those used to construct the houses of the lower class, whether those are of stone, brick, and wood, or different qualities of reeds.

It is hoped that by way of the models presented in this thesis and the two summarizing charts of this chapter the cultural landscape will be more easily read by those interested in reading it. When we learn to read we must master skills such as decoding and contextual analysis. Simultaneously, and once these skills have been mastered, we read to learn. One is a prerequisite of the other. Hopefully, this thesis is a contribution to both.

APPENDIX I

CONVOCATION PROGRAM

PROGRAMME

I. Procession.

II. Invocation.

III. Annual Report--The President.

IV. Announcement and Award of Scholarships.
Prizes and Medals.

V. Convocation Address.

VI. Conferring of Degrees--The Chancellor.

VII. Address--The Chancellor.

VIII. God Save the King.

IX. Recession.

CONFERRING OF DEGREES

Degrees are conferred by the Chancellor with the consent of the Senate on the recommendation of the Faculty Councils. The Registrar, as Secretary of the Senate, requests permission of that body for the admission of the candidates; the Dean, as representative of the Faculty Council, presents them; the President, representing the University, receives their pledge of loyalty and fidelity; the Chancellor admits them to the degree. The Chancellor remains seated during the ceremony except when he rises to admit a Master or Doctor. On his right are the Visitor and guests of honor; on his left, the President. Candidates are presented for degrees in the following order: Bachelors, Masters, Doctors, Honorary Doctors. In each case, degrees in course precede ad eundem degrees; professional degrees precede higher; junior Faculties precede senior.

The ceremony comprises four parts: Petition, Presentation, Pledge, Admission. The Pledge is not required of those proceeding to the same or a higher degree.

THE PETITION

The Registrar addresses the Chancellor and Senate in these words:

"Eminent Chancellor and Gentlemen of the Senate, I present to you the petition of the Faculty Council of this University that the candidates whom I shall name, having fulfilled all the requirements of the statutes, may, with your permission, be admitted to the degrees to which they are entitled:--

"To the degree of Bachelor of Arts,

(Then follow the names in full, those of women first.)

The Senate replies, "Granted."

THE PRESENTATION

The Dean, followed by the candidates, approaches the Chancellor and the President from the left and present the candidates with these words:--

"Eminent Chancellor and President, on behalf of the Faculty of Arts (etc.) I present to you these scholars (Bachelors) and ask that you will admit them to the degree of Bachelor (or Master) of Arts."

For ad eundem candidates the following form is to be used:

"Eminent Chancellor and President, I present to you this Bachelor of Arts in the University of ________ and ask on his behalf that you will admit him to the same degree in this University."

THE PLEDGE

The President, then rising, addresses the candidates in these words:--

"Do you promise faithfully to observe and loyally to maintain the statutes, customs, privileges and liberties of this your University? Do you pledge your honour that when you become a member of Convocation you will vote only for those whom you surely know or firmly believe to be fit and proper persons to share in the government of this University? Do you solemnly promise to conduct yourself in all things loyally and faithfully to the honour of your University, the encouragement of learning and the good of your country?"

Each candidate replies: "These things I pledge myself to do."

THE ADMISSION

The Chancellor then addresses the candidates in these words:--

"By virtue of the authority vested in me by the Legislature of this Province, and with the consent of the Senate of this University, I consent to admit you to the degree of Bachelor (Master) of Arts, and to invest you with all the powers, rights and privileges pertaining to that degree, and I charge you to use them for the glory of God and the honour of your country."

Then the Dean repeats the words "I present to you _______________ (giving the candidate's name in full)," and the candidate kneels and places his hands between those of the Chancellor. Then the Chancellor says, "I admit you" and the Registrar places the hood over the candidate's head. Hereupon the Bachelor rises and passes to the Chancellor's right.

When a Master or a Doctor is being presented the Chancellor rises, and shaking hands with the candidate, thus admits him to the degree.

The ceremony for the admission of an Honorary Doctor should indicate the desire to do honor to a distinguished guest. The petition to the Senate should be omitted, the pledge not exacted. The presentation is made by a member of the University especially appointed for that purpose. In making the presentaiton he should refer to the eminent services of the guest as reasons why the University delights to do him honour. The Chancellor says, "In recognition of your illustrious public services (or eminent services to Science or Literature) I desire on behalf of this University to confer upon you the Honorary Degree of Doctor of Laws and to express the hope that our country (or Science, or Literature, or Arts, etc.) may continue for many years to be enriched and ennobled by the devotion of your great gifts." Then the Chancellor shakes his hand, welcoming him to membership in the University. This is followed by the signing of the roll of Honorary Doctors.

RECESSION

The recession will be led by the Chancellor and Visitor, and the audience will remain standing until the recession has left the Convocation Hall.

PROCESSION

Juniores priores.--Procession (in double file); involves at entrance to Convocation Hall. Audience stands during entrance of procession and remains standing until the Chancellor has reached his place and sits down.

Order of Procession:--

1. Graduands: B.A., B.Sc. in Arts, B.Sc., M.D., LL.B., M.A., M.Sc.
2. Members of Convocation:--Bachelors, Masters, Doctors.
3. Staff, Principals and Presidents of Affiliated Institutions:--Preparatory Schools, Normal Schools, Professional Societies, Colleges.
4. University Staff--juniores priores.
5. Senate.
6. Board of Governors.
7. Guest of honor, including (a) candidates for honorary degrees (the latter to be accompanied by those who present them); (b) Ministers of the Crown.
8. Vice-Chancellor and Minister of Education.

9. President and Prime Minister.
10. Chancellor and Visitor.

THE INVOCATION

The Invocation shall be pronounced in rotation by the Principals of the affiliated theological colleges, and shall consist of the following prayer written for the purpose by Principal Oliver, Saskatoon:

"Most Gracious God and Father in Whom dwelleth all fullness of light and wisdom, enlighten our minds, we beseech Thee, by Thy Holy Spirit, that we may have a true conception of Thy will. Convince us by Thy Grace that Thou hast made us towards Thyself and that our hearts will find no rest till they find rest in Thee. Be pleased to bestow Thy choicest blessing on every school of learning that strives to lead men into a larger life. Grant that the Students and Professors in this University may ever study to be helpful, may cease not to be patient in the search for truth, and in the midst of doubt and difficulty to abide steadfast, undismayed. Give us grace always to employ our talents to the profit of this province, the advancement of this Dominion of Canada, the glory of our Empire, and the advancement of Thy Kingdom. Give unto them who today go forth from this University, that no pursuit of glory, gain or wealth, that no desire for knowledge of things vain and hidden, that no envy or sloth or indifference nor any other creature may be able to separate them from whatsoever things are true and honest and just and pure. Hear us of Thy mercy through Him Who taught us when we pray to say 'Our Father, Who art, etc.'"

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Chancellor. Charles Stuart. 1913-27.

Chancellor. N. D. Beck. 1927.

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Grounds and Kitchen. 1919-20.

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